DOCUMENT RESUME

ED 339 890 CE 059 846

TITLE	Apparel and Textiles Production, Management, and Services. Curriculum Guide.
INSTITUTION	Texas Tech Univ., Lubbock. Home Economics Curriculum Center.
SPONS AGENCY	Texas Education Agency, Austin. Div. of Vocational Programs.
PUB DATE	Jul 91
NOTE	481p.; For corresponding reference book, see CE 060 024.
AVAILABLE FROM	Home Economics Curriculum Center, Box 41161, Texas Tech University, Lubbock, TX 79409-1161.
PUB TYPE	Guides - Classroom Use - Teaching Guides (For Teacher) (052)
EDRS PRICE	MF02 Plus Postage. PC Not Available from EDRS.
DESCRIPTORS	Behavioral Objectives; Classroom Techniques; *Clothing; Clothing Design; *Clothing Instruction; Course Content; Curriculum Guides; Fashion Industry; *Laundry Drycleaning Occupations; Learning Activities; Needle Trades; Secondary Education; *Sewing Instruction; Sewing Machine Operators; Teaching Methods; Test Items; *Textiles Instruction; Transparencies; Units of Study

ABSTRACT

Developed with input from personnel in the industries, this curriculum guide complements a companion reference book about various areas of the textiles and apparel industries. Each of the 22 chapters of the guide begins with 1 or more essential elements and objectives, and each chapter consists of teaching strategies for classroom use. Teaching aids (such as transparency masters, information sheets, and resources) are included for use in implementing the teaching strategies, and tests with answers are provided for each chapter. The chapters cover these topics: the textiles and apparel industries; job success in these industries; maintaining customer relations; safety and sanitation; goals, policies, and procedures; textiles and apparel--terminology, use, and care; selection of fabrics and notions for garment design; elements and principles of design; sewing, repairing, and pressing techniques; measuring for custom-made garments; pattern alteration procedures; unit construction techniques; garment alterations--fitting; garment alterations--adjustments; quality in apparel and accessories; coordinating apparel and accessories; marketing--promotions and special events; visual merchandising; use and care of sewing and pressing equipment; receiving, marking, and identifying laundry and dry cleaning; laundry and dry cleaning procedures; and safety and sanitation for laundering, pressing, and dry cleaning. (KC)

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Production, Management, and Services
Curriculum Guide

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APPAREL AND TEXTILES PRODUCTION, MANAGEMENT, AND SERVICES
Curriculum Guide

Developed and disseminated by:

HOME ECONOMICS CURRICULUM CENTER
Box 41161, Texas Tech University
Lubbock, Texas 79409-1161

Directed by:
Texas Tech University
College of Home Economics
Lubbock, Texas

In Cooperation with:
Texas Education Agency
Department of Curriculum and Instruction
Division of Vocational Programs
Home Economics Education
Austin, Texas

July 1991

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ACKNOWLEDGEMENTS

This *Apparel and Textiles Production, Management, and Services* curriculum guide was prepared by the Home Economics Curriculum Center staff through funding from the Texas Education Agency, Austin, Texas, under Part B, Program Improvement, of Public Law 98-524, in cooperation with the College of Home Economics, Texas Tech University, Lubbock, Texas. The Division of Home Economics Education, Texas Education Agency, provides supervision and directional guidance for curriculum development.

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PREFACE

The textiles and apparel industries are growing and diverse industries. Textiles are used to make apparel and a wide variety of other items from burn bandages and artificial arteries to parts for space vehicles and airplane bodies. Clothing is the most obvious product of the textiles and apparel industries. The fashion industries employ people in a variety of roles including fashion design, apparel manufacturing, and retailing. In addition, employment areas such as advertising, fashion journalism, visual merchandising, and marketing are areas in which individuals may specialize. The area of clothing services employs individuals in custom sewing, tailoring, dressmaking, dry cleaning, laundering, alterations, personal shopping, and many other occupations. Professional home economists are employed in a wide range of occupations including teaching and consulting.

More than two million people are employed by the textiles and apparel industries. More than five thousand textiles companies and approximately twenty thousand apparel firms exist in the United States. In 1987, forty-eight states had textile plants, fifty states had apparel manufacturing plants, and forty-eight states produced natural or manufactured fiber. There are heavy concentrations of these industries in all parts of the United States. Jobs exist that require different levels of training and education. Entry-level jobs offer inexperienced employees opportunities to receive training and to be promoted to higher level positions when experience and skill are gained. Other jobs are available to individuals with education in areas related to apparel and textiles.

This curriculum guide compliments a matching reference book which presents general information about various areas of the textiles and apparel industries. The content of the reference book and curriculum guide was developed with input from individuals from various parts the textiles and apparel industries including manufacturing, design, cottage-industry entrepreneurs, and clothing services employees. Consequently, the information includes both conventional and industrial techniques and equipment in order to provide comprehensive content from which each teacher may choose needed information for the local situation.

This curriculum guide provides information needed by teachers. Each chapter begins with one or more Essential Elements and Objectives to Achieve. Each chapter consists of teaching strategies for the teacher's use in the classroom. It is recommended that teaching strategies be selected to fit the local situation, level of students' abilities and experience, job situations, and time available. Teaching aids are included for use in implementing the teaching strategies. In addition, a test is provided for each chapter in the reference book, and answers are included for ease in evaluation of students' test answers.

The *Apparel and Textiles Production, Management, and Services* reference book and curriculum guide are concentrated on the skills and attitudes needed for successful employment in the textiles and apparel industries. The book is organized into twenty-two chapters that are intended to be used as needed, not in any particular order. No one reference or curriculum guide can provide all the information needed for a career in a particular field. Therefore, students should be encouraged to study various topics more intensively, to use additional references, and to apply the information in either laboratory or on-the-job training. Hands-on experience is essential to students.

Apparel and Textiles Production, Management, and Services is part of an occupational education series that focuses on a broad range of employment opportunities. Each title in the series addresses one career cluster. The materials may be used for one or more years of instruction. Curriculum materials for other career clusters are also available from the Home Economics Curriculum Center, Texas Tech University, Box 41161, Lubbock, Texas 79409-1161.

TAC 75.83
APPAREL AND TEXTILES PRODUCTION, MANAGEMENT, AND SERVICES

(q) Apparel and textiles production, management, and services (two units) shall include the essential elements in this subsection. All courses shall include the essential elements in paragraphs (1) and (2) of this subsection. In addition, training programs emphasizing apparel and textiles production shall include the essential elements in paragraphs (3) – (5) of this subsection, training programs emphasizing apparel and textiles management and services shall include the essential elements in paragraphs (6) – (8) of this subsection, and training programs emphasizing apparel and textiles services shall include the essential elements in paragraphs (9) and (10) of this subsection.

(1) Concepts and skills related to managing apparel business and responsibilities. The student shall be provided opportunities to:

(A) demonstrate how to function effectively in routine operations;
(B) demonstrate interpersonal qualities which lead to job success in apparel and textiles industry;
(C) describe techniques for maintaining good customer relationships;
(D) demonstrate safety practices and sanitation procedures; and
(E) apply organizational goals, policies, and procedures.

(2) Concepts and skills related to identifying and describing apparel. The student shall be provided opportunities to:

(A) apply correct textiles and apparel terminology;
(B) identify textile characteristics and care; and
(C) relate textile characteristics to garment design, construction, alteration, and repair.

(3) Concepts and skills related to the production of clothing and accessories. The student shall be provided opportunities to:

(A) select fabrics and notions suitable for garment design;
(B) apply design elements when designing, constructing, or altering apparel;
(C) apply appropriate sewing and pressing techniques in garment construction; and
(D) apply safety procedures while operating equipment.

(4) Concepts and skills related to constructing custom-made garments. The student shall be provided opportunities to:

(A) apply appropriate procedures when measuring for custom garment;
(B) apply pattern alteration procedures to ensure custom fit of garment; and
(C) apply unit construction techniques.

(5) Concepts and skills related to garment alteration and repair. The student shall be provided opportunities to:

(A) describe considerations for fitting garments;
(B) demonstrate garment adjustments following alteration markings; and
(C) demonstrate appropriate garment repair techniques.

(6) Concepts and skills related to clothing and accessories. The student shall be provided opportunities to:

(A) apply design elements when designing, constructing, or altering apparel;

(B) identify signs of quality in clothing and accessories; and
(C) illustrate coordination of clothing and accessories for infants, children, or adults.

(7) Concepts and skills related to advertising and promotional activities. The student shall be provided opportunities to:

(A) apply marketing techniques when assisting with promotions and special events; and
(B) prepare fashion displays.

(8) Concepts and skills related to selection, storage, use, and care of sewing tools and equipment. The student shall be provided opportunities to:

(A) demonstrate safety practices while using and storing equipment;
(B) demonstrate appropriate use and care of sewing or pressing equipment; and
(C) demonstrate sewing, repairing, or pressing techniques.

(9) Concepts and skills related to garment alterations and repairs. The student shall be provided opportunities to:

(A) describe considerations for fitting garments;
(B) demonstrate garment adjustments following alteration markings; and
(C) demonstrate appropriate garment repair techniques.

(10) Concepts and skills related to commercial care of clothing. The student shall be provided opportunities to:

(A) demonstrate procedures to receive, mark, and identify laundry or dry cleaning;
(B) determine appropriate laundry and dry cleaning procedures;
(C) demonstrate safety and sanitary procedures while laundering, pressing, or dry cleaning;
(D) demonstrate commercial laundry or dry cleaning techniques; and
(E) demonstrate pressing procedures.

GUIDE TO ESSENTIAL ELEMENTS

Apparel and Textiles Production, Management, and Services (TAC 75.83)

Apparel and textiles production, management, and services (two units) shall include the essential elements in this subsection. All courses shall include the essential elements in paragraphs (1) and (2) of this subsection. In addition, training programs emphasizing apparel and textiles production shall include the essential elements in paragraphs (3) – (5) of this subsection, training programs emphasizing apparel and textiles management and services shall include the essential elements in paragraphs (6) – (8) of this subsection, and training programs emphasizing apparel and textiles services shall include the essential elements in paragraphs (9) and (10) of this subsection.

Required Essential Elements	Related Chapters
(q1A) Demonstrate how to function effectively in routine operations.	1
(q1B) Demonstrate interpersonal qualities which lead to job success in apparel and textiles industry.	2
(q1C) Describe techniques for maintaining good customer relationships.	3
(q1D) Demonstrate safety practices and sanitation procedures.	4
(q1E) Apply organizational goals, policies, and procedures.	5
(q2A) Apply correct textiles and apparel terminology.	6
(q2B) Identify textile characteristics and care.	6
(q2C) Relate textile characteristics to garment design, construction, alteration, and repair.	6
(q3A) Select fabrics and notions suitable for garment design.	7
(q3B) Apply design elements when designing, constructing, or altering apparel.	8
(q3C) Apply appropriate sewing and pressing techniques in garment construction.	9
(q3D) Apply safety procedures while operating equipment.	4
(q4A) Apply appropriate procedures when measuring for custom garment.	10
(q4B) Apply pattern alteration procedures to ensure custom fit of garment.	11
(q4C) Apply unit construction techniques.	12
(q5A) Describe considerations for fitting garments.	13
(q5B) Demonstrate garment adjustments following alteration markings.	14
(q5C) Demonstrate appropriate garment repair techniques.	9
(q6A) Apply design elements when designing, constructing, or altering apparel.	8
(q6B) Identify signs of quality in clothing and accessories.	15
(q6C) Illustrate coordination of clothing and accessories for infants, children, or adults.	16

Required Essential Elements		Related Chapters
(q7A)	Apply marketing techniques when assisting with promotions and special events.	17
(q7B)	Prepare fashion displays.	18
(q8A)	Demonstrate safety practices while using and storing equipment.	4
(q8B)	Demonstrate appropriate use and care of sewing or pressing equipment.	19
(q8C)	Demonstrate sewing, repairing, or pressing techniques.	9
(q9A)	Describe considerations for fitting garments.	13
(q9B)	Demonstrate garment adjustments following alteration markings.	14
(q9C)	Demonstrate appropriate garment repair techniques.	9
(q10A)	Demonstrate procedures to receive, mark, and identify laundry or dry cleaning.	20
(q10B)	Determine appropriate laundry and dry cleaning procedures.	21
(q10C)	Demonstrate safety and sanitary procedures while laundering, pressing, or dry cleaning.	22
(q10D)	Demonstrate commercial laundry or dry cleaning techniques.	21
(q10E)	Demonstrate pressing procedures.	19

1

The Textiles and Apparel Industries

ESSENTIAL ELEMENT

- Demonstrate how to function effectively in routine operations.(q1A)

OBJECTIVES TO ACHIEVE

- Describe the size, scope, and importance of the textiles and apparel industries in today's society.
- Explain how the textiles and apparel industries began and developed in the United States.
- Review the role of imports, exports, and technology in the textiles and apparel industries.
- List routine operations that entry-level employees perform in the textiles and apparel industries.
- List examples of routine operations in the areas of clothing services, clothing production and management, and textiles and clothing design.
- Identify general routine tasks that textiles and apparel employees may perform.

ASSIGNMENT

- Read Chapter One in the *Apparel and Textiles Production, Management, and Services Reference Book.*

HISTORY OF THE INDUSTRY

TS 1:1* Have students conduct historical research that requires them to examine the textile industry between the years 1800 and 1950. Assist each student in identifying a topic to research. The following list includes examples of research topics:

- invention of the cotton gin
- invention of the power loom

* TS 1:1 indicates teaching strategy, chapter 1, number 1.
[B] = Basic Skill Reinforcement
[C] = Common Essential Element

- invention of the foot-treadle sewing machine
- invention of the electrically-powered sewing machine
- cotton production in the United States
- first manufactured fiber

Have each student compile research findings in a research paper. Lead a class discussion about students' findings. KEY QUESTIONS: How has the textiles industry grown in the United States? Who were the key people responsible for growth in the textiles industry? In what ways have inventions had an impact on the textiles industry? If some textile and apparel inventions or discoveries had not occurred, how would our lives be different?[B]

TS 1:2 Display Teaching Aid 1, Historical Time Line. Ask students to examine their research to add additional dates and findings to the time line. Lead a class discussion on ways the textiles industry has influenced society in the United States. KEY QUESTIONS: In what ways have the textile and apparel industries influenced our society? What are the relationships between inventions identified on the time line? What changes would occur in our lifestyles if the United States did not manufacture fibers? What types of products are produced from manufactured fibers?

TS 1:3 Provide a definition of sweat shops and describe sweat shops of the late nineteenth and early twentieth centuries. Divide the class into groups. Ask each group to research the fashion industry in the late nineteenth century. Areas to investigate include the following:

- locations of apparel manufacturing plants
- lifestyles of workers employed in apparel manufacturing plants
- ethnic backgrounds of workers
- salaries paid to workers
- working conditions of apparel manufacturing plants
- laws related to the working conditions in apparel manufacturing plants

Have each group compile findings in a summary report. Have elected group leaders share findings with the class. KEY QUESTIONS: Why were apparel manufacturers able to find people to work in sweat shops? Why were sweat shops forced to improve working conditions? CRITICAL QUESTIONS: Do manufacturing plants with poor working conditions still exist in the United States? Why?[B][C]

TS 1:4 Invite a person from the community who is employed with one of the oldest retail businesses in the community to speak to the class. Ask the speaker to describe changes that have taken place within his or her retail establishment. Also ask the speaker to make predictions about the future of retail in the twenty-first century. Guide students in writing appropriate questions prior to the speaker's arrival. KEY QUESTIONS: How did you become involved in a retail business? Would you recommend employment in retail as a good career choice? Why? What changes have occurred in apparel retail stores during the last fifty years? What projections can be made about the future of apparel retail in the next twenty years?[B]

Imports and Exports

TS 1:5 Divide the class into groups and instruct the groups to investigate the role Dwight Eisenhower, John Kennedy, Richard Nixon, and Jimmy Carter had in developing agreements with foreign countries regarding exports of textile goods to the United States. Have elected group leaders share their findings with the class.[C]

TS 1:6 Have students research for information on importing and exporting apparel textile goods. KEY QUESTIONS: How can imports and exports of textiles and apparel goods contribute to the development of a trade deficit? In what ways can United States citizens help prevent trade deficits? CRITICAL QUESTIONS: How does excessive importing of textiles and apparel products contribute to the unemployment of workers in the United States? Should there be limits on amounts of apparel and textile products a particular country can export to the United States? Why?[B][C]

TS 1:7 Divide the class into two teams. Define *protectionism* and *free trade*. Have students research the topics of protectionism and free trade to learn the benefits and disadvantages of each position to countries that adopt protectionist or free trade policies. Lead a class debate on protectionism versus free trade. Have students answer debate questions based on their research. Allow an elected leader from each debate team to summarize the team's philosophy regarding the group's assigned debate position.[B][C]

TS 1:8 Lead students to brainstorm for ways to encourage consumers to purchase United States textile and apparel products. Have each student use creativity to develop a logo that promotes the idea of buying textiles and apparel goods produced in the United States. Have students display their creative logos for an FHA/HERO community project. Direct students search for sample advertisements from newspapers, magazines, and other publications that promote goods produced in the United States. CRITICAL QUESTIONS: What organization(s) promote(s) apparel and textiles goods produced in the United States? How effective has the "Made in the U.S.A." campaign been? Why?[C]

Technology in the Industry

TS 1:9 Contact a resource person whose profession relates to technological advancement in apparel and textiles. Have the resource person bring or provide brochures and illustrations of products produced through the use of advanced technology. KEY QUESTIONS: How has new technology affected the textile and apparel industries? How has new technology affected overall production costs of apparel and textiles?

TS 1:10 Lead a class discussion on technological advancements in the textile industry. Stress the importance of using the computer to aid in design and manufacturing. Show an audiovisual presentation on use of *computer-aided design (CAD)* or *computer-aided manufacturing (CAM)* in textiles and apparel design and manufacturing. Lead a class discussion on CAD/CAM in textiles and apparel design and manufacturing. KEY QUESTIONS: What are the advantages of using CAD/CAM in textiles and apparel design and manufacturing? What are the disadvantages of using CAD/CAM in textiles and apparel design and manufacturing? How has advanced technology increased productivity in textiles and apparel manufacturing? What academic skills would be needed to effectively and efficiently operate a CAD/CAM system? CRITICAL QUESTION: How can one develop these skills?[C]

ROUTINE TASKS

Clothing Services Routines

TS 1:11 Provide students with copies of Yellow Pages of a local or area telephone book and have them identify names of businesses that might be classified as clothing services businesses. Lead students to brainstorm for a list of job titles in the occupational area of clothing services.[B][C]

TS 1:12 Divide the class into groups. Have each group interview a person employed by a clothing services business. Explain that the purpose of the interviews is to identify job responsibilities of clothing services employees. Ask each group to present an oral or written report about the business. KEY QUESTIONS: What are examples of routine tasks of employees in the area of clothing services? What skills would be needed for a clothing services job? What personal trait do clothing services employees feel is the most important to possess? Why?[B][C]

Clothing Production and Management Routines

TS 1:13 Provide a list of jobs that exist in cutting, sewing, and shipping rooms of apparel manufacturing plants. Stress the skills needed for each job. KEY QUESTIONS: What are examples of routine tasks of employees in the area of clothing and production management? What skills would be needed for a clothing production and management job? In what ways can on the job training help in perfecting work skills needed in clothing production and management jobs?[C]

Textiles and Clothing Design Routines

TS 1:14 Divide the class into groups. Instruct groups to read references about the following jobs: cutter, grader, finisher, trimmer, clothing designer, textile designer, researcher, and textile product designer. Stress the importance of determining skills needed for each job. Ask each group to share findings with the class through oral and visual presentations. KEY QUESTIONS: What are examples of routine tasks of employees in the area of textiles and clothing design? What additional training might be needed in textile and clothing design jobs? CRITICAL QUESTION: Where can such training be obtained?[B][C]

TS 1:15 Instruct students to complete Teaching Aid 2, Textiles and Clothing Design Job Responsibilities, to specifically identify the daily routines of people employed in the field of textiles and clothing design.

Merchandising, Fashion, and Retailing Routines

TS 1:16 Lead students to brainstorm to list job responsibilities for the following job titles:
- window and store display person
- fashion coordinator
- buyer
- fashion model
- salesperson

- stock clerk
- department store manager

Lead a class discussion on the similarities of each job. Have students complete Teaching Aid 3, Job Responsibilities for Merchandising, Fashion, and Retailing.

TS 1:17 Have students define the following terms associated with sales and returns: *cash sale, charge sale, layaway sale, COD sale,* and *credit slip*. Show examples of each form that might be used with various methods of payment. KEY QUESTIONS: What are the most common types of routines involving sales and returns conducted by retail employees? What method of payment is most preferred by customers? Why? What problems could arise from each method of payment? What method of payment is most common for teenage customers? Why?

General Routine Tasks

TS 1:18 Direct students to define the following terms associated with general routine tasks: statement, sales check, sal*es commission, scanners/optic readers, change fund, buying change, inventory, inventory management,* and *stock*. KEY QUESTIONS: What are the most common types of routines involving sales and returns conducted by retail employees? What is the relationship between recording each sale and inventory control? What are some possible reasons for differences in sales totals and inventory totals?

TS 1:19 Display Teaching Aid 4, Statement. Lead a class discussion on the parts of a statement. Stress that statements may vary in appearance. Have several business statement examples available for students to critique.

TS 1:20 Lead a class discussion on wage earning by *sales commissions*. Ask students to perform the calculations described in Teaching Aid 5, Sales Commission Case Study, to determine the advantages and disadvantages of being paid by sales commissions. KEY QUESTIONS: What are the advantages of sales commissions? What are the disadvantages of sales commissions? Why would retail store owners prefer sales commissions as a method of employee payment?[B]

TS 1:21 Lead students to brainstorm to determine the importance of accuracy in general routine tasks. Instruct students to transfer the list to a titled chart form. Display the chart in the classroom to serve as a reminder for students.

TS 1:22 Divide the class into groups. Instruct each group to select a general routine task to demonstrate for the class. Each group should prepare appropriate props for the demonstration. Have elected group leaders summarize the importance of each task in an oral presentation. The following list includes examples of general routine tasks:

- opening routines
- closing routines
- operating a cash register
- handling money
- housekeeping tasks
- inventory tasks[B][C]

2

Job Success in the Textiles and Apparel Industries

ESSENTIAL ELEMENT

- Demonstrate interpersonal qualities which lead to job success in apparel and textiles industry.(q1B)

OBJECTIVES TO ACHIEVE

- Discuss networking and describe different levels of training available for career preparation.
- Review example jobs, job descriptions, training requirements, and personal qualities needed for employment in clothing services.
- Summarize example jobs, job descriptions, training requirements, and personal qualities needed for employment in clothing production and management.
- Review example jobs, job descriptions, training requirements, and personal qualities needed for employment in textiles and clothing design.
- Summarize example jobs, job descriptions, training requirements, and personal qualities needed for employment in merchandising, fashion, and retailing.
- Compare various employment opportunities for home economists.
- Describe employment opportunities for and qualities of entrepreneurs.
- Identify general qualities needed for employment in any job.

ASSIGNMENT

- Read Chapter Two in the *Apparel and Textiles Production, Management, and Services Reference Book.*

CLOTHING SERVICES

TS 2:1* Divide the class into groups. Assign to each group or each individual a job in the field of clothing services. Ask each group to research academic requirements, skills, and responsibilities of the assigned job. Have elected group leaders summarize findings in oral presentations. Have students identify similarities between and differences in the clothing services jobs researched.[B][C]

TS 2:2 Invite representatives from the clothing services industry to participate on a panel or have students write people employed in the field of clothing services to obtain information. Have students ask resource people for information on the requirements and responsibilities of their jobs. Guide students in writing questions for resource people.[B][C]

TS 2:3 Instruct each student to select one job from the clothing services industry that is interesting. Have each student research information about the job and requirements for employment. Direct each student to write a summary paper. The following list of items may be included in the papers:

- local and regional sources of jobs
- academic requirements
- job-related skills
- job hours
- work environment
- health and safety risks associated with the jobs

KEY QUESTIONS: What relationships are there between different types of clothing services jobs? What clothing services jobs may involve some safety and health risks? Why? Why is the selected job interesting to you?[B]

CLOTHING PRODUCTION AND MANAGEMENT

TS 2:4 Invite a dressmaker or tailor to speak to the class about jobs in clothing production. Ask the speaker to describe requirements and responsibilities of his or her job. KEY QUESTIONS: Why are fewer people entering jobs related to personal clothing production? Will the jobs of dressmaker and tailor become obsolete? Why? How would on-the-job training be helpful in developing required work skills?

TS 2:5 Lead students to brainstorm for a list of skills needed for employment in the field of personal clothing production. Divide the class into groups. Ask each group to determine methods for acquiring skills needed for success in clothing production and management. Have elected group leaders share findings with the class.[C]

TS 2:6 Briefly review clothing production terminology including definitions of the following terms: *personal clothing production, industrial clothing production, clothing/apparel manufacturer, branded merchandise, piece goods*, and *satellite operation*.

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* TS 2:1 indicates teaching strategy, chapter 2, number 1.
[B] = Basic Skill Reinforcement
[C] = Common Essential Element

Display Teaching Aid 6, Satellite Operation. Have students identify various jobs available in clothing manufacturing companies.

TS 2:7 Provide Teaching Aid 7, Industrial Clothing Production. Direct students to provide information as noted on the teaching aid related to descriptions of clothing manufacturers, satellite operations, jobbers, and contractors. KEY QUESTIONS: What are the roles of the jobber in clothing production? What are the roles of the contractor in clothing production? What is the relationship between the jobber and the contractor? What functions do satellite operations perform? What examples of industrial clothing production businesses exist in the local community or region?

TS 2:8 Show students examples of private label apparel merchandise. Provide a definition of the term *private label merchandise*. Ask students to brainstorm for a list of retailers in the community or region that sell private label merchandise. Students may find it helpful to use the Yellow Pages of a telephone directory to remind them of stores. KEY QUESTIONS: What are the advantages and disadvantages of producing private label merchandise for the manufacturer? How does a retailer benefit by selling private label merchandise? What are the advantages for the consumer of purchasing private label merchandise?

TS 2:9 Ask students to research for information on clothing manufacturing plants in the United States during the last 100 years? Refer to Teaching Aid 8, Textile Industry Contacts, to obtain materials for students or have students obtain materials. Have each student combine his or her findings in a research paper. KEY QUESTIONS: What changes have occurred in clothing manufacturing plants during the last 100 years. Why have changes in clothing manufacturing plants occurred? What predictions can be made about the future of clothing manufacturing plants in the United States?[B]

TS 2:10 Divide the class into groups. Ask each group to select a time period from the following list to prepare materials that reflect clothing manufacturing over the last 100 years:

- 1890-1910
- 1911-1930
- 1931-1950
- 1951-1970
- 1971-1990

Ask groups to identify ways high technology has influenced changes in clothing manufacturing. Instruct groups to work together in combining their materials to create a display. Have elected group leaders summarize findings in oral presentations. CRITICAL QUESTION: During which historical time periods did high technology allow the development of items such as hooks and eyes, loop and pile fasteners, zippers, and interfacing?[B][C]

TS 2:11 Define *garment district* and show an audiovisual depicting the garment district in New York City. Ask students to identify the functions of various types of businesses in the garment district. Explain the importance of purchasing apparel goods made in the United States. Instruct students to write essays about their perceptions of purchasing apparel produced in the United States. Ask employees of a local newspaper to read the essays and recognize one or two of the essays by publishing it/them in the local newspaper. KEY QUESTIONS: What functions are performed by various types of businesses in the garment district in New York City? Do consumers purchase more foreign-made apparel goods or goods produced in the United States? Why? What positive changes might occur if United States citizens bought more United States apparel goods than foreign goods?[B][C]

TS 2:12 Assist students to define *cottage industries* and identify any cottage industries existing in the community or region. Ask students to define *entrepreneurship* and consider why cottage industries would be considered entrepreneur businesses. KEY QUESTIONS: What are the advantages and disadvantages of an apparel firm contracting with cottage industries to produce apparel instead of producing apparel themselves? How does a cottage industry benefit by working for an apparel manufacturing business? CRITICAL QUESTIONS: What steps are involved in starting a cottage industry as an entrepreneur? Is there a need for cottage industries in the community or region?[C]

TS 2:13 Have students define *style, lot numbers/style numbers, line/collection, staple apparel/basic apparel, fashion apparel, season,* and *market week.* Divide the class into groups or pairs. Ask each group or pair to search through magazines and develop ideas for an apparel line. Have students identify their line as consisting of staple apparel or fashion apparel. In addition, ask students to identify the season for which the apparel line was designed and create a promotional visual to present the apparel line during market week. Display illustrations of the apparel line on poster board or using another method of display. Ask leaders to share apparel lines through oral presentations. The following list includes examples of people to consider when creating apparel lines:

- women
- men
- teenage females
- teenage males
- children
- infants and preemies
- handicapped or disabled individuals
- elderly individuals

KEY QUESTIONS: What are the similarities between styles of the apparel lines? What are the differences between styles of the apparel lines? Why is market week important to apparel manufacturers and designers? What are the differences in staple and fashion apparel? Are the lines developed by students staple or fashion apparel? Why? What special features might be included when designing apparel for handicapped or disabled individuals? Is there a market for apparel especially designed for handicapped or disabled people?[B][C]

TS 2:14 Provide students with Teaching Aid 9, Personal Qualities, emphasizing the qualities needed by a person employed in a clothing production and management job. Direct students to read the case study and respond to the questions. Ask students to determine if personal qualities identified in the case study would be those needed for a job related to clothing production and management.[B][C]

TEXTILES AND CLOTHING DESIGN

TS 2:15 Lead student[illegible] brainstorm for a list of jobs in the field of textiles and clothing design that are simila[illegible] jobs in clothing production and management. KEY QUESTIONS: What work skills are needed for both job areas? How can work skills be developed? What experience could students acquire in high school that would assist in developing work skills? Why are some jobs in textiles and clothing design also considered to be part of the field of clothing production and management? CRITICAL QUESTIONS: How has computer technology changed the field of textiles and clothing design? What types of computer-related skills are useful for individuals wishing to enter the field of textiles and clothing design?[C]

TS 2:16 Direct students to define the following terms: *sample maker*, *embroidery designer*, *screen printer*, *weaver*, and *fashion designer*. Present an audiovisual on one or more of these textiles and clothing design businesses. Audiovisuals are available from some businesses or companies. Have students record questions regarding the processes involved in performing jobs in each of the identified areas.[B][C]

TS 2:17 Present an audiovisual to help define the following list of textile and clothing design work locations: *design studio*, *print design studio*, *weaving mill*, and *knitting mill*. Ask students to record information on the types of jobs available through these work locations. KEY QUESTIONS: What are the functions of a design studio? a print design studio? a weaving mill? a knitting mill? Are there examples of any of these textiles and clothing design businesses in the community or region? Where? Is clothing actually produced by these types of businesses? What is produced? To whom do these businesses sell their products?[C]

TS 2:18 Lead a class discussion to help students define *print plant*, *screen printing plant*, *screen printing methods*, *converter* and *gray goods*. Show students illustrations of garments that have had designs applied by a print plant and by a screen printing plant. Ask students to identify similarities between and differences in the garments.

TS 2:19 Have each student design a stencil suitable for T-shirt application. Instruct students to use designing procedures similar to those used in print plants. Inform students that they may want to practice applying the stencil to paper and scrap fabrics before working on the T-shirt. Ask FHA/HERO chapter members to select one or two of the finished stencils to serve as a logo for an FHA/HERO community project. KEY QUESTIONS: What skills would be needed to work creatively in a print plant? What skills could students acquire in high school that would assist in perfecting work skills?[C]

MERCHANDISING, FASHION, AND RETAILING

TS 2:20 Lead a class discussion to define *retailing* and *retail firms*. Identify several retail businesses in the community or region and discuss changes that have occurred in retail during the last ten to fifteen years. Ask students to classify each identified business as a specialty store, department store, or discount store. KEY QUESTIONS: What changes in retail have taken place within the community or region?

What predictions can be made about retail businesses within the next century? Are there more specialty stores, department stores, or discount stores in the community or region? Why? Which classification of retail store seems to be more popular presently? Why? CRITICAL QUESTIONS: Do consumers seem to prefer to shop at stores with which they are familiar? Why? How does brand loyalty influence consumers to choose certain stores? How have computers and other high technology equipment improved retailing for the consumer? for the business? for the employees?

TS 2:21 Divide the class into groups. Assign a retail store to each group. Instruct each group to create a store atmosphere by visually displaying photographs or illustrations of apparel-related merchandise. Each group should write a detailed description of how the merchandise might be presented in the store in order to make it most appealing to the customer. Have elected group leaders share store plans with the class through oral and visual presentations.[B][C]

TS 2:22 Ask students to define *merchandising*. Present ideas through photographs or other visuals of effective ways to present merchandise. Display Teaching Aid 10, Five Rights of Merchandising. Ask each student to write a short essay explaining the importance of the five rights of merchandising to retailers. KEY QUESTIONS: Why do merchandising techniques vary between different types of retail stores? What merchandising techniques are commonly used by most retail stores? How important are merchandising techniques to the success of selling merchandise? Do you prefer to shop in a store where merchandise is well displayed? Why? CRITICAL QUESTION: What are the similarities between and differences in merchandising methods used in department and specialty stores as compared to those used in discount stores?[C]

TS 2:23 Instruct each student to select an apparel-related item to display in a retail setting. Have each student share his or her display with the class and present an oral summary of why the display techniques were selected.[B]

TS 2:24 Instruct students to research and define *fashion*, *haute couture*, *high-fashion*, and *mass fashion*. Lead a class discussion on an early haute couture designer, Charles Frederick Worth, and show examples of his designs. Through illustrations of apparel from different time periods, ask students to identify changes that have occurred in fashion history. Have each student summarize his or her research findings in a summary paper. KEY QUESTIONS: What are the differences in fashion, haute couture, high-fashion, and mass fashion? Which of these classifications of fashion goods do most consumers wear? Why? What design techniques did Charles Worth contribute to the fashion industry? CRITICAL QUESTION: What are examples of other designers who have significantly influenced the fashion industry through various time periods?[B]

TS 2:25 Lead students to brainstorm for a list of jobs available to people interested in merchandising, fashion, and retailing. KEY QUESTIONS: What personal skills would be needed for success in these jobs? What skills could be acquired in high school to better prepare students for success in these job areas? Why are merchandising, fashion, and retail jobs usually appealing to teenagers? What are the advantages and disadvantages of being employed in the field of merchandising, fashion, and retailing?[C]

TS 2:26 Instruct students to complete Teaching Aid 11, Qualities for Success, to determine their strengths and weaknesses related to employment in the field of fashion buying and merchandising. Have each student write a brief essay describing a person who is likely to be successful in the field of fashion buying and merchandising.[B]

PROFESSIONAL HOME ECONOMICS OCCUPATIONS

TS 2:27 Lead a class discussion to define *home economist*. Lead students to brainstorm for jobs a home economist is trained to perform. Have students prepare display materials about careers available to home economists. KEY QUESTIONS: What job skills are needed by home economists? What are examples of job opportunities related to clothing and textiles that are available to professional home economists? Which of these employment opportunities are available in the local community? region?

TS 2:28 Lead a class discussion on the profession of teaching. Stress the importance of a teacher knowing the content areas he or she teaches. Display Teaching Aid 12a, Lesson Plan, and explain important components of a lesson plan while students review the sample. KEY QUESTIONS: Why do teachers use lesson plans in class preparation? What are the advantages of using lesson plans? What types of teaching jobs are available related to clothing and textiles at the high school level? at the college and university level? What educational preparation is required for each of these teaching positions? CRITICAL QUESTION: Why are good teachers needed today in the field of clothing and textiles?

TS 2:29 Provide students with a list of appropriate clothing and textiles related topics. Instruct each student to select one topic and prepare a brief lesson for the class. Provide students with Teaching Aid 12b, Lesson Plan, to use in preparing a brief lesson plan. Guide students in completing lesson plans on the selected topics. Stress the importance of having all materials ready before teaching the lesson. KEY QUESTIONS: Why are lesson plans important? Why is it important to identify an objective before teaching a lesson? What were the strengths of the lesson taught? What were the weaknesses of the lesson taught? What changes could be made if the same lesson is taught again? How do visuals help students learn?

TS 2:30 Identify the roles of Cooperative Extension Service professionals. Lead students to brainstorm to identify the variety of jobs performed by Cooperative Extension Service professionals. Ask students to prepare a demonstration or announcement for radio or television that pertains to clothing and textiles. Integrate the radio or television spot into an FHA/HERO community project. KEY QUESTIONS: How do Cooperative Extension Service professionals educate various groups within the community? What qualities should a cooperative Extension Service professional possess in order to be successful? What are the similarities between responsibilities of Cooperative Extension Service professionals and home economics teachers? What are the differences between the responsibilities of Cooperative Extension Service professionals and home economics teachers?[B][C]

TS 2:31 Provide a definition of *freelance work* for students. Direct students to identify jobs that could be performed by a freelance home economist. KEY QUESTIONS: How do freelance home economists learn about available jobs? What are the advantages of being a freelance home economist? What are the disadvantages of being a freelance home economist? CRITICAL QUESTION: Why might a freelance home economist be considered an entrepreneur?[C]

TS 2:32 Have students role play situations identified on Teaching Aid 13, Home Economists as Consultants. Students may work with partners to practice role play situations. Ask students to consider the various roles home economists may perform as consultants. Have each student write a brief summary of the learning experience.[B][C]

TS 2:33 Invite a panel of home economists to discuss with students duties or responsibilities of their jobs. Ask the panel members to stress academic training necessary to achieve professional goals. Guide students in preparing questions prior to the panel members' presentations. KEY QUESTIONS: What academic requirements were needed by most of the professions? What were the similarities in job responsibilities of the professionals? What were the unique responsibilities of some of the professions? What profession was most intriguing? Why?[C]

TS 2:34 Lead students to brainstorm for a list of personal skills needed by a home economist. From the list of skills, ask students to identify the skills they possess and skills they need to improve. Have students determine ways these skills can be enhanced. KEY QUESTION: Why is it difficult to acquire new personal or academic skills?[C]

ENTREPRENEURSHIP

TS 2:35 NOTE: In order for students to gain a basic understanding of the economic system and the value of work, concepts in Unit II of *Consumer and Family Economics*, from the Home Economics Curriculum Center, Texas Tech University, Lubbock, Texas, may be presented.[C]

TS 2:36 Based on previous teaching strategies, have students define the term *entrepreneur*. KEY QUESTIONS: What is an entrepreneur? What characteristics should a person possess before deciding to try entrepreneurship? What skills are needed to run a retail business? What disadvantages might be experienced by an entrepreneur? CRITICAL QUESTIONS: Why is home economics considered a people profession? What entrepreneurship possibilities can be achieved by home economists?[C]

TS 2:37 Have groups of students or individuals create collages that reflects their interpretations of qualities of successful entrepreneurs. Have students share their collages with the class. Display the collages in the classroom.[C]

TS 2:38 Have students define *free enterprise*, *capitalism*, and *capital*. KEY QUESTIONS: What is the relationship between free enterprise and entrepreneurship? What is the relationship between capitalism and entrepreneurship? Why are many United States citizens willing to take the risk of business ownership? CRITICAL QUESTION: How is free enterprise vital to the economy of the United States?[C]

TS 2:39 Divide the class into groups. Ask each group to research one of the following topics:

- sole proprietorship
- general partnership
- limited partnership
- silent partners
- corporation

Instruct each group to use references available in the school or community library for the project. Have each group summarize findings in a summary paper. Ask elected group leaders to share findings with the class through oral presentations.[B][C]

TS 2:40 Ask each student to write a definition of *franchise*. Ask students to brainstorm to identify the franchised retail businesses within the community or region. Have students specifically identify those franchises that are related to clothing and textiles. KEY QUESTIONS: What are the benefits of a franchise business? What are the disadvantages of owning a franchise? CRITICAL QUESTION: What are the risk factors of a franchise as compared to sole proprietorship?[C]

TS 2:41 Lead students to brainstorm to list clothing and apparel businesses that may have been started in a home. KEY QUESTIONS: Why would an entrepreneur be interested in starting a business in the home? What are the advantages of having a business in the home? What are the disadvantages of having a business in the home? When would the entrepreneur want to change location of his or her business?[C]

TS 2:42 Show an audiovisual that reflects entrepreneurs. Display Teaching Aid 14, Traits of a Successful Entrepreneur. Have student identify successful entrepreneurs by researching information such as articles in periodicals. Each student should write a brief description of a selected entrepreneur, his or her business, and the qualities the person possesses that have made him or her a successful business person.[B][C]

GENERAL QUALITIES NEEDED FOR EMPLOYMENT

TS 2:43 Lead students to brainstorm to identify the general qualities employers look for in employees. Lead a class discussion on the ability of a person to self-evaluate strengths and weaknesses. Instruct each student to participate in a self-evaluation activity by writing down his or her strengths and weaknesses. Ask each student to share one or two items from the list and state how a weakness could be changed or improved. KEY QUESTIONS: What are examples of general qualities needed by employees? Who are role models that possess exceptional general qualities?[B][C]

TS 2:44 Direct groups of students or individuals to prepare booklet that reflect general or personal qualities needed for successful careers. Integrate the learning experience with FHA/HERO by asking students to use the booklets as guides when preparing for participation in STAR Events.[B][C]

Appearance

TS 2:45 NOTE: In order for students to gain a basic understanding of personal health and its influence on employability, concepts in Unit I of *Home Economics Career Cluster*, from the Home Economics Curriculum Center, Texas Tech University, Lubbock, Texas, may be presented.

TS 2:46 Lead a class discussion on having a neat and well-groomed appearance. Ask students to identify the problems that may occur if an employee is not well-groomed. KEY QUESTIONS: Why is grooming important for success in the workplace? What problems may occur if employees are not well-groomed?[C]

TS 2:47 Invite a representative from the fashion-related business or another appropriate resource person to speak to the class about the importance of good grooming. Ask the speaker to stress problems that may occur if an employee is not well-groomed. Guide students in preparing questions for the speaker prior to the presentation.[C]

Vocal and Communication Skills

TS 2:48 Instruct each student to make a presentation about his or her career goals. Have class members critique each presenter for the following vocal and communication skills:

- pronounces words correctly
- uses correct grammar
- uses terminology related to the career area
- speaks at correct volume for presentation
- has an enthusiastic or pleasant tone to the voice

KEY QUESTIONS: Why is it important to use correct vocal and communication skills on the job? What difficulties or problems could an employee face if he or she did not have appropriate vocal and communication skills? How can vocal and communication skills be improved?[B][C]

Cooperation

TS 2:49 Ask students to select partners. Instruct each pair to role play cooperation in the workplace by selecting a topic from the list below:

- The supervisor asks an employee to work overtime and the employee cooperates.
- A supervisor and an employee disagree on a merchandising display and the employee is uncooperative.
- The supervisor requests a sample maker to change two sample garments by next week's deadline and the sample maker is cooperative.
- A department manager requests that a supervisor document the past month's productivity in a report due the following day and the supervisor is uncooperative.

Inform students that role plays should be approximately five minutes in length. Ask students to write out dialogue and practice before preforming for the class. KEY QUESTIONS: Why is cooperation important in the workplace? What can employees do to encourage cooperation in the workplace? What can management do to encourage cooperation in the workplace?[B][C]

Positive Work Habits

TS 2:50 Lead students to brainstorm for a list of personal habits that may be annoying to others in the workplace. Lead a class discussion on the influence of positive work habits on the work environment and on other employees.[C]

Accuracy, Courtesy, and Initiative

TS 2:51 Lead a class discussion on the importance of doing the best job possible in the workplace. KEY QUESTIONS: Why have attitudes changed in regard to doing a little extra? What changes have taken place in work ethic? Why? How does doing a little extra benefit the employee on a long-term basis?

TS 2:52 Lead a class discussion on the importance of accuracy, courtesy, and initiative in the workplace. Instruct each student to role play accuracy, courtesy, and initiative in the workplace. Assign each student a topic from the following list:

- A supervisor checks register counts following the manager's count and finds an error.
- A salesperson politely assists an unfriendly customer in selecting appropriate merchandise.
- Two employees disagree on a merchandising plan and one of the employees politely backs down.
- An employee restocks merchandise without being told to restock the merchandise.
- An employee is asked by a manager to assist him or her in a retail seminar.

Instruct student to write out dialogue and to practice before preforming for the class. Suggest that students be prepared with appropriate props.[C]

Dependability, Honesty, and Promptness

TS 2:53 Have students develop definitions for *dependability*, *honesty*, and *promptness*. Instruct students to read selected materials on dependability, honesty, and promptness and develop a list of interview questions related to these qualities. Assign students to interview business people they may know regarding the importance of employees possessing these traits. KEY QUESTIONS: What is the relationship between dependability and work productivity? What is the relationship between honesty and work productivity? What is the relationship between promptness and work productivity? CRITICAL QUESTIONS: What is the relationship between productivity and work ethic in the United States? What can be done in public school systems to encourage development of a strong work ethic?[B][C]

Self-control

TS 2:54 Lead a class discussion on the importance of maintaining self-control. Ask two students to role play a supervisor and employee involved in an unpleasant confrontation. Instruct the person playing the employee to remain calm and in control. Have each student identify the importance of self-control in a brief summary paper.[B][C]

Positive Attitude

TS 2:55 Lead a class discussion on keeping a positive attitude in a work environment. Stress developments that could occur when the work environment becomes negative. Have each student create a file folder packet that reflects his or her personality. Instruct each student to find pictures or list words that best describe him or her. Direct each student to place pictures on the fronts of the packets and record positive traits he or she possesses inside the packet. KEY QUESTIONS: Why is the work environment enhanced when employees have positive attitudes? Why is it important to see positive traits in other people? Why is it important to compliment other people for their good traits and for their positive achievements? CRITICAL QUESTION: How does having a positive attitude influence productivity?[B][C]

TS 2:56 Show an audiovisual on positive attitudes in the workplace. Direct students to record ideas they have while watching the audiovisual presentation on ways to create a positive work environment. KEY QUESTIONS: What can employers do to create a positive environment for employees? What can employees do to create a positive work environment?

3

Maintaining Customer Relations

ESSENTIAL ELEMENT

- Describe techniques for maintaining good customer relationships.(q1C)

OBJECTIVES TO ACHIEVE

- Identify types of customers and their motivations for buying.
- Describe the importance of maintaining a positive attitude toward employee situations and customer relationships.
- Explain how personality and appearance influence relationships with customers and identify methods for self-improvement.
- Identify basic guidelines for communicating with customers in person and by telephone.
- Analyze character traits that aid in the development of successful customer relations.
- Describe methods for completing basic sales and service transactions successfully.

ASSIGNMENT

- Read Chapter Three in the *Apparel and Textiles Production, Management, and Services Reference Book.*

TYPES OF CUSTOMERS

TS 3:1* Lead a class discussion to help students define *innovative customer, comparison shopper, impulse buyer,* and *follower.* Divide the class into groups. Assign each group a type of customer. Display Teaching Aid 15, Types of Customers. Ask students to list characteristics of each customer. Have elected group leaders share characteristics with the class. Lead a class discussion on the characteristics identified and how each compares to trends in the community. KEY QUESTIONS: What influences affect a customer's ability to choose when making purchases? What is the relationship between innovative customers and impulse buyers? What other types of shopping orientations exist?[B][C]

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* TS 3:1 indicates teaching strategy, chapter 3, number 1.
[B] = Basic Skill Reinforcement
[C] = Common Essential Element

TS 3:2 Instruct each student to write a brief, descriptive analysis of his or her purchasing habits. Have students compare their purchasing habits with those of the different types of customers. Have each student share his or her description with the class. KEY QUESTIONS: What type of customer are you? What are the relationships between your purchasing style and the types of customers? CRITICAL QUESTION: How can one's purchasing habits create long-term economic difficulties.[B]

TS 3:3 Invite a representative from the retail community to speak to the class about innovative customers, comparison shoppers, impulse buyers, and followers. Ask the speaker to describe circumstances that can arise as a result of a customer's spending habits. Guide students in preparing questions prior to the speaker's presentation.[B]

POSITIVE ATTITUDES

TS 3:4 Display Teaching Aid 16, Attitudes. Lead students to brainstorm to identify a word for each letter of the word *attitude*. Each word should describe the word *attitude*. Ask each student to create a phrase with his or her word choices.[B]

TS 3:5 Lead a class discussion on positive attitudes. Stress how the workplace can be altered when employees have positive attitudes. Instruct students to read from selected articles about attitude. Have each student summarize his or her reading in a brief paper. KEY QUESTIONS: How do individuals develop attitudes? What influences a person's attitude? What steps can a person take to change his or her attitude?[B]

TS 3:6 Lead a class discussion on how an individual's attitude affects his or her self-concept. Stress that the lowering of self-concept can result in a negative attitude. KEY QUESTIONS: How can the workplace affect a person's self-concept? What factors in the workplace can encourage a negative self-concept?

TS 3:7 Instruct students to write paragraphs completing the following statement: "I wish my employer had understood when..." Ask each student to share his or her response.[B]

PERSONALITY AND APPEARANCE

TS 3:8 Lead a class discussion to assist students in defining *personality* and *image*. KEY QUESTIONS: What are the similarities between personality and image? What are the differences between personality and image? How can a person's personality influence his or her image?

TS 3:9 Lead a class discussion on personality. Divide the class into cooperative learning groups. Ask each group to identify a well-known person in the apparel and fashion industry. Instruct students to research the private and career life of the chosen person to determine a personality profile. Have the groups summarize the personality profiles in written papers. KEY QUESTIONS: How does personality develop? What can influence personality development as a person matures? CRITICAL QUESTION: What is the relationship between a successful career and personality?[B]

TS 3:10 Show an audiovisual describing personality. Lead a class discussion on elements that influence personality and how personalities can be altered as a person matures.

TS 3:11 Lead a class discussion on ways a person can improve his or her personality. Ask students to complete Teaching Aid 17, Self-Improvement Plan. Have students identify traits they possess that are weaknesses and traits that are strengths. Have each student write a plan for personal improvement.[B]

TS 3:12 Divide the class into cooperative learning groups. Have each group create a mobile titled, "Striving for a Good Personality." Students may use wire, string, pictures, and paper to illustrate positive personality traits and goals for achieving a good personality.

COMMUNICATION

TS 3:13 Have students define *communication* and *verbal communication*. Show students an audiovisual containing examples of effective communication patterns. KEY QUESTIONS: Why is it important for employees to possess good communication skills? What communication skills should employees and employers possess? Why? How can people change their communication patterns?

TS 3:14 Divide the class into cooperative learning groups. Ask each group to select a work-related setting such as an employee lunchroom or an employee social event. Have each group compile a list of communication problems that could exist in each work-related setting. Guide each group in developing a plan for correcting the identified communication problems.

TS 3:15 Lead students to brainstorm for problems that can occur when an employee possesses poor communication skills. Instruct students to determine ways communication skills can be improved. Have students prepare a communications reminder list to display in the classroom.[B]

TS 3:16 Give each student oral instructions for completing a specific task. Do not allow students to ask questions during instructions and do not repeat instructions. Ask each student to act out his or her task. Lead a class discussion on ways verbal instruction can be improved. KEY QUESTIONS: What caused frustrations in completing the tasks? Why do misinterpretations or problems occur when instructions are given orally? How can communication skills be improved?

Telephone Communication

TS 3:17 Divide the class into cooperative learning groups. Instruct each group to create a visual describing appropriate telephone communication skills. Ask the groups to display their visuals in the classroom. KEY QUESTIONS: Why are telephone communication skills important? How can poor telephone communication skills affect a business? How can telephone communication skills be improved? What guidelines should be followed when receiving telephone calls?

TS 3:18 Lead a class discussion on telephone communication. Stress that the employee answering the telephone may be the first contact a customer has with a company. Lead students to brainstorm to identify types of businesses that are managed by using the telephone. KEY QUESTIONS: How important is the use of the telephone in the workplace? Why do many businesses rely on the telephone as a means to conduct business?

TS 3:19 Group students into pairs. Assign each pair a telephone communication situation to role play. Instruct each pair to perform the assigned role play for the class. Students may also record their role plays on audio cassettes. Instruct students to critique each role play and offer suggestions for improving telephone communication.

Communication with Customers in Person

TS 3:20 Invite a person from the retail community to discuss the importance of positive communication with customers. Ask the speaker to stress the negative outcomes when an employee does not possess positive communication skills. Guide students in preparing written questions for the speaker. KEY QUESTIONS: Why is it important to consider a customer's feelings? What changes might occur in the workplace when an employee exhibits positive communication skills?[B]

TS 3:21 Help students define *nonverbal communication*. Stress that positive nonverbal communication, such as a smile, can make a customer feel satisfied. Ask students to determine the effects of negative nonverbal communication. KEY QUESTION: How can nonverbal communication improve customer satisfaction?

TS 3:22 Lead students to list positive and negative nonverbal communication that can enhance or interfere with success in the workplace. Instruct each student to role play a situation using nonverbal communication. Videotape each student's role play. Ask students to critique the role plays and provide written suggestions for changing negative nonverbal communication to positive nonverbal communication.[B]

TS 3:23 Help students to list effective listening skills. Instruct each student to use the list to evaluate personal listening skills. Ask each student to write a brief summary on how to improve listening skills. KEY QUESTIONS: What are the benefits of having good listening skills in the workplace? How can listening skills be improved?[B]

TS 3:24 Display Teaching Aid 18, Rules of Conversation. Lead a class discussion on the rules of conversation and how they contribute to success as a communicator.

CHARACTER TRAITS FOR SUCCESSFUL CUSTOMER RELATIONS

TS 3:25 Lead students to brainstorm to list character traits that can enhance successful customer relations. Lead a class discussion on ways these character traits can be achieved. KEY QUESTIONS: What traits should employees possess in order to be successful? Why are positive character traits important in successful employee/customer relations?

TS 3:26 Lead a class discussion to define *friendliness*, *cheerfulness*, *courtesy*, and *tact*. Stress how these character traits contribute to positive employee/customer relations. Divide the class into cooperative learning groups. Instruct each group to create a visual depicting positive character traits. Have students display the visuals throughout the classroom.

TS 3:27 Lead students to brainstorm for reasons some people find it difficult to develop positive character traits. Display Teaching Aid 19, Character Traits, and lead a class discussion on positive outcomes that can occur when customers receive friendly and courteous attention.

TS 3:28 Divide the class into cooperative learning groups. Ask each group to role play one of the following situations regarding positive character traits and negative character traits:

Positive Character Traits

- An employer asks an employee to assume some extra daily responsibilities without pay. The employee agrees to do the jobs that are required.
- A frustrated customer wants to make an exchange. The employee handles the exchange with prompt, courteous attention
- A customer tries on clothing of the wrong size. The employee assists by bringing the customer a variety of sizes to try.

Negative Character Traits

- An employee takes credit for another employee's large sale.
- Several customers enter the store. For personal reasons, an employee decides not to assist the customers.
- An employer and employee disagree about the work schedule.

Have students make recommendations for changing negative character traits.

SALES AND SERVICE

TS 3:29 Lead a class discussion on the types of sales transactions and services that occur in retail businesses. Lead students to brainstorm to identify problems that can occur when sales transactions and services are not carried out satisfactorily. KEY QUESTION: Why is it important for sales transactions to be completed with efficiency? CRITICAL QUESTION: What long-term effects can occur when transactions are mishandled?

TS 3:30 Divide the class into cooperative learning groups. Ask each group to select a business and develop written guidelines and/or directions appropriate for the following sales transactions and services:

- responsibilities of store employees
- purchase transactions (including credit, cash, check, and layaway)
- customer complaints
- merchandise returns (returning damaged merchandise)

- gift wrap
- delivery

Lead a class discussion on the guidelines and their usefulness to employers and new employees.[B]

Sales Transactions

TS 3:31 Lead a class discussion to determine the approach and procedures used to make sales transactions. Ask students to demonstrate several methods for approaching customers. Have remaining students discuss when each approach would be appropriate.

TS 3:32 Show an audiovisual from a retail apparel business that reflects the business' philosophy regarding sales transactions. Lead a class discussion on how the philosophies of apparel companies may differ. KEY QUESTIONS: When should customers be approached in a store? Why is it important to approach customers?

TS 3:33 Write or project the term *positive sales closer* on a board or screen. Instruct each student to write a brief definition and provide an example of a positive sales closer. Have students share their definitions and examples with the class. KEY QUESTIONS: Why is a positive sales closer important to each sales transaction? What are the long-term effects of using a positive sales closer?[B]

Service Transactions

TS 3:34 Lead students to brainstorm to identify types of services provided to customers in retail businesses. KEY QUESTIONS: What are the benefits of providing services to customers? Why do retail stores offer customer services? Are people more likely to purchase items from retail businesses that offer services? Why?

TS 3:35 Instruct students to read a variety of descriptions of services provided by retail businesses. Ask each student to list the services he or she would offer in a retail business. Have each student describe in a written paper why the services were selected.[B]

Managing Customer Complaints

TS 3:36 Lead a class discussion to help students define *empathy*. Discuss the importance of showing empathy when handling customer complaints. Stress that customers are not personally attacking employees when complaints are registered. KEY QUESTIONS: In what situations do customers voice complaints? Why is it important for employees to understand procedures for handling customer complaints?

TS 3:37 Display Teaching Aid 20, Customer Complaints. Lead a class discussion on the strategy or approach employees can use to handle each customer complaint. Emphasize that employees should follow the guidelines of the firm when resolving customer complaints.

4

Safety and Sanitation

ESSENTIAL ELEMENTS

- Demonstrate safety practices and sanitation procedures.(q1D)
- Apply safety procedures while operating equipment.(q3D)
- Demonstrate safety practices while using and storing equipment.(q8A)

OBJECTIVES TO ACHIEVE

- Identify safety responsibilities of management and employees.
- Discuss government regulations, codes, and standards related to safety in the workplace.
- Assess various factors that contribute to safety for employees in automated office environments.
- Identify major causes of accidents.
- Explain procedures for prevention of accidents.
- Describe procedures used in fire emergencies.
- Describe procedures used in medical emergencies.

ASSIGNMENT

- Read Chapter Four in the *Apparel and Textiles Production, Management, and Services Reference Book.*

SAFETY RESPONSIBILITIES

TS 4:1* Lead a class discussion about the importance of safety in the workplace. Divide the class into groups. Have each group develop a list of safety rules and regulations for the classroom, office, and laboratory. Post copies in strategic locations around the laboratory. Stress the importance of reviewing safety rules and regulations frequently. KEY QUESTIONS: Why are safety rules important? Why should safety rules and regulations be periodically reviewed? What might be some of the short-term and long-term effects on employees and businesses if employees do not follow safety rules and regulations?[B][C]

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* TS 4:1 indicates teaching strategy, chapter 4, number 1.
[B] = Basic Skill Reinforcement
[C] = Common Essential Element

TS 4:2 Lead a class discussion about work-related accidents and the number of accidents that occur each year. Emphasize that in the United States the number of work-related accidents has decreased. KEY QUESTIONS: How is the number of work injuries related to safety in the workplace? Does the employer or employee have the most responsibility for safety in the workplace? Why? Do you consider yourself a cautious person? Why? Have you ever caused someone else to be injured in the workplace? How?[C]

TS4:3 Lead a class discussion about the fact that most accidents, on and off the job, are caused by human error. Point out several types of human errors that could contribute to accidents. Some of these human errors might include the following:

- poor safety attitudes
- lack of safety knowledge
- lack of safety skills
- physical limitations
- physical or mental fatigue

KEY QUESTIONS: Do you know anyone who has changed a career or job because of a work-related accident? Why did he or she change jobs? What can employers do to help prevent work-related accidents? What can employees do to help prevent work-related accidents?[C]

TS 4:4 Lead a class discussion to help students define *negligence*. Stress that a business is held liable if negligence occurs during the employees' working hours. KEY QUESTIONS: What does liability involve? Why is it necessary to identify liable parties? What are benefits of integrating a safety program into a business?

TS 4:5 Divide the class into cooperative learning groups. Ask each group to develop a safety program for an apparel and textiles business. Ask FHA/HERO members to contact apparel and textiles businesses to determine if they would like to have their safety materials updated. Have students return the materials to the businesses after updating them. KEY QUESTIONS: What are the benefits of having a safety program? What obstacles or challenges might occur when establishing guidelines?[B][C]

TS 4:6 Lead a class discussion on appropriate procedures for handling emergencies that may occur in apparel and textiles manufacturing or in retail businesses. Ask each student to read from several sources about the variety of accidents that occur in the workplace and methods for prevention. Have each student summarize his or her recommendations in a brief report. The following are examples of accidents and safety hazards that may be described in the reports:

- sewing needle through finger
- electrical shock
- industrial machine on fire
- hand cut by electric shears

- fires in the workplace
- obstructed aisles
- burn from pressing equipment
- exposure of skin or eyes to solvents and spot-cleaning fluids.[B][C]

TS 4:7 Ask students to briefly sketch and describe clothing for the following work settings:

- apparel manufacturing plant
- retail apparel business
- retail fabric business
- retail accessories business
- apparel design firm

Lead a class discussion about how work clothing may vary based on what is available. Describe ways clothing may interfere with work assignments. KEY QUESTIONS: Why are employees required to wear certain clothing while at work? What safety factors should be considered before deciding on appropriate work clothing? What are the similarities in required work clothing for different businesses? What are the differences in required work clothing for different businesses?[B]

TS 4:8 Appoint or have students elect a class safety committee. The committee members should assist in developing and monitoring safety rules and regulations. Ask each committee member to report unsafe conditions or practices immediately. The committee members' assignments could be rotated like other class or laboratory responsibilities. KEY QUESTIONS: What are the advantages of having a safety committee? How frequently should safety committees observe the safety of classroom and laboratory conditions? What are the benefits of rotating committee members' responsibilities?

TS 4:9 Lead a class discussion on the forms used to report injuries that occur in the workplace. Emphasize that injuries must be reported shortly after they occur in order for proper forms to be completed and appropriate action to be taken. For more information regarding workplace safety, contact the United States Department of Labor, Occupational Safety and Health Administration, OSHA 2209, Washington, D.C., 20210 and obtain the *OSHA Handbook for Small Businesses.* KEY QUESTIONS: How important is it to complete these forms? Why? What complications may occur for employer and employee if forms are not completed?

TS 4:10 Display Teaching Aid 21, Safety Rules, and lead a class discussion about the variety of ways businesses can maintain safety standards. KEY QUESTIONS: What can employees do to increase safety while at work? Why is it important for employers to establish safety rules and standards? What should employers do to ensure safety in the workplace? Why do employers have the legal right to discipline employees who do not follow safety rules?[C]

TS 4:11 Lead students to brainstorm for a list of items that should be included in a first-aid kit. Stress the importance of performing a regular inventory of supplies. As an FHA/HERO activity, have members assemble a first-aid kit and develop a first-aid booklet. Ask each FHA/HERO member to write a brief statement about the necessity and use of one item in the first-aid kit. Have chapter members compile the statements for a first-aid booklet.[B][C]

TS 4:12 Invite the school nurse to speak to the class about first-aid procedures. Ask the nurse to stress the importance of employers and employees acquiring basic first-aid training. Have the nurse demonstrate basic first-aid techniques. Guide students in preparing written questions prior to the presentation.[B]

GOVERNMENT REGULATIONS, CODES, AND STANDARDS

TS 4:13 Have students view Teaching Aid 22, Standards for a Hazard-Free Environment. Lead a class discussion about effects of the Occupational Safety and Health Act of 1970 in the workplace. KEY QUESTIONS: What results when the Occupational Safety and Health Act of 1970 is not enforced? What are the advantages of having the Occupational Safety and Health Act of 1970? Why do some businesses have fewer accidents than others? CRITICAL QUESTION: How can the cost of accidents be calculated?

TS 4:14 Lead a class discussion about reasons employers must display legal OSHA posters listing rights regarding safety of employees. Stress that employees also have the right to be aware of all chemicals being used in the workplace. KEY QUESTIONS: Why should employees be aware of legal rights regarding safety? Why are employers required to identify chemicals being used in the workplace?[C]

TS 4:15 Display Teaching Aid 23, Employee Responsibilities. Lead a class discussion about the safety responsibilities of employees. Emphasize that all employees must follow safety rules and regulations or face violation charges under the Occupational Health and Safety Act of 1970. KEY QUESTIONS: What are employee responsibilities? Why is it important for employees to follow safety rules and regulations?

TS 4:16 Lead a class discussion to help students define *worker's compensation laws*. Instruct students to read from several resources about worker's compensation laws and how they relate to businesses in the community. KEY QUESTIONS: What are worker's compensation laws? Why were worker's compensation laws developed?[B]

TS 4:17 Invite a representative from an apparel or textiles business or from an insurance business to speak to the class about liability insurance and worker's compensation. Ask the speaker to discuss the advantages and disadvantages of both types of coverage. Guide students in preparing questions prior to the presentation. KEY QUESTIONS: What are the benefits of worker's compensation insurance? How are the benefits determined? What are some of the controversial issues related to worker's compensation?[B]

TS 4:18 Lead a class discussion to help students define *certificates of occupancy*. Emphasize that codes are enforced during building, remodeling, and operational use of a building. KEY QUESTIONS: Why is it important to acquire a certificate of occupancy? What may occur if builders do not adhere to codes?

TS 4:19 Invite a building code inspector to speak to the class about building codes. Ask the speaker to emphasize why codes were established. Guide students in preparing written questions prior to the presentation.[B]

ENVIRONMENTAL CONCERNS IN AUTOMATED OFFICES

TS 4:20 Lead a class discussion to define *ergonomics*. Emphasize that some companies hire ergonomics experts to identify safety needs. KEY QUESTIONS: What are the advantages of hiring an ergonomics expert? Why are employers concerned about making the workplace comfortable, efficient, and safe for employees? CRITICAL QUESTION: What are the long-term advantages of making the workplace safe, comfortable, and efficient?[C]

TS 4:21 Lead a class discussion about the inadequate wiring in older buildings. KEY QUESTIONS: What complications can result from inadequate or old wiring? What changes can be made to make the workplace electrically safe?

TS 4:22 Instruct students to read from several sources about health and well-being of employees. Have each student select a topic from the following list:

- suitable lighting
- comfortable furnishings
- proper equipment
- hazardous chemicals
- hazardous waste
- noise levels
- passive smoking
- recycling/environmental preservation
- labor-saving devices

Ask each student to compile his or her findings in a research paper. Have each student summarize findings in an oral presentation. Evaluate papers for content and clarity.[B]

TS 4:23 Lead students to brainstorm for a list of ways employers and employees can work together in creating a healthier and safer workplace. Lead a class discussion about techniques to integrate into employees' work habits to relieve eye strain, headaches, and muscle and body aches.

TS 4:24 Write or project *carpal tunnel syndrome* on a board or screen. Lead a class discussion about carpal tunnel syndrome and ways to relieve soreness and swelling of the wrist. Have each student hold his or her wrists in a typing position for ten minutes. Emphasize that employees who work at computer terminals may have their wrists in this position for several hours at a time. KEY QUESTIONS: How can prolonged work activities create health risks? What can employees do to relieve symptoms related to prolonged work activities?[B]

TS 4:25 Divide the class into cooperative learning groups. Ask each group to design a work environment that will enhance productivity through comfort. Have students look through resources to identify the following:

- office furniture
- office chairs with correct dimensions for comfort
- fluorescent lighting and lighting fixtures
- computer equipment (tilting monitor)
- location of automated equipment that contributes to noise pollution

- designated smoking area

Ask groups to compile their findings in brief written reports. Have elected group leaders share findings with the class.[B][C]

TS 4:26 Lead students to brainstorm for a list of chemicals found in businesses that create hazardous health conditions. Ask students to determine ways of removing the hazardous chemicals from the workplace. KEY QUESTIONS: Why are some chemicals hazardous to health? What can employers do to make the workplace environmentally safe for all employees?

TS 4:27 Ask students to examine the labels of household cleaners to determine a list of chemicals. Divide the class into cooperative learning groups. Instruct each group to research several chemicals to identify safety precautions when using the chemicals in the home or workplace. Have elected group leaders share findings with the class. KEY QUESTIONS: Are household chemicals safe? Why? Why do consumers think household chemicals are safe? CRITICAL QUESTION: What can consumers do to prevent hazardous chemicals from affecting the health of family members?[B][C]

TS 4:28 Invite a resource person from the community health department or another knowledgeable person to speak about the hazardous chemicals people breathe on a daily basis. Ask the speaker to emphasize ways employers and employees may prevent health hazards that result from breathing chemicals. Guide students in preparing questions prior to the presentation.[B]

TS 4:29 Lead a class discussion about noise pollution and its relationship to employee productivity. KEY QUESTIONS: Why might various noise levels affect employee productivity? What could employers do to provide a work environment suitable to all employees? What long-term risks are associated with noise levels?

TS 4:30 Arrange to take students on a field trip to a apparel or textiles manufacturing plant. Have students observe employee work habits and listen for the variety of sounds in the workplace. Ask students to determine if the variety of noises and noise levels affect productivity. Instruct each student to summarize his or her observations by writing a paper. Have students share findings in oral reports.[B][C]

MAJOR CAUSES OF ACCIDENTS

TS 4:31 Lead students to brainstorm to identify the types of accidents that could occur in an apparel and textiles business. Divide the class into cooperative learning groups. Ask each group to identify ways to prevent accidents. Have an elected group leader share prevention tips with the class.[C]

TS 4:32 Lead a class discussion about the hazard of electrical cords in an apparel and textiles businesses. Emphasize that effects from electrical shock depend on the circuit, voltage, amperage, and the pathway taken through the body. Have student volunteers prepare display materials or illustrated talk to show hazards related to use of electrical cords.

TS 4:33 Ask FHA/HERO chapter members to prepare a skit about correct methods for handling electrical cords. Help students make arrangements to share the skit with elementary-age school children.[B][C]

TS 4:34 Display various types of electrical extension cords and adapters. Have volunteers demonstrate the correct use of each type of extension cord and adaptor. KEY QUESTIONS: When should extension cords be used? What purpose do adapters serve?[C]

TS 4:35 Invite a resource person to present a demonstration on how to replace a plug on an electric cord. Give each student the opportunity to practice replacing plugs. For a FHA/HERO activity ask chapter members to check the electrical cords on school equipment. Hazards should be reported to the appropriate school authority.[C]

TS 4:36 Have students read books and other resources to identify health and safety hazards in the workplace. Instruct students to draw cartoons that identify unsafe conditions in the workplace. Examples include the following: glare on computer monitors; improper body alignment when using computers, hazard that may cause thermal contact burns, slippery or wet floors, electrical cords in traffic lanes, poor lighting, improper maintenance of floors, brooms and mops in traffic lanes, carelessness, and unsteady or broken ladders. Display the cartoons. CRITICAL QUESTION: What preventive measures should employers take to eliminate health and safety hazards in the workplace?[B][C]

TS 4:37 Ask FHA/HERO chapter members to prepare displays about safety in the workplace. Make arrangements for chapter members to distribute safety checklists to businesses and community leaders.[B][C]

TS 4:38 Instruct students to prepare a visual display titled, "Prescription for Safety." Ask students to use pictures, sketches, or cartoons that depict safe practices in their school and community.[B][C]

TS 4:39 Invite a building inspector to speak to the class about the relationship between commercial building codes and the needs of developmentally disabled people. Guide students in preparing questions prior to the speaker's arrival. KEY QUESTIONS: What differences exist between commercial and residential requirements? Why? How difficult is it to modify buildings to meet the needs of developmentally disabled people?

TS 4:40 Define *fatigue*. Lead a class discussion about fatigue and its relationship to workplace accidents. KEY QUESTIONS: How does fatigue promote workplace accidents? What steps can be taken to prevent accidents when an employee is feeling symptoms of fatigue?

PROCEDURES FOR ACCIDENT PREVENTION

TS 4:41 Instruct each student to prepare a project titled, "Community Safe." The project should consist of a paper, visual display, and oral presentation. Have each student

select a topic and read from several sources. The following items should be included in the project:
- identification of an accident that could occur in the workplace
- description of the accident
- how frequently the accident occurs
- procedures for prevention
- other helpful information

Arrange to have Community Safe projects displayed in the community or school. KEY QUESTION: Why it is important to know accident prevention techniques? CRITICAL QUESTION: How can teenagers teach others about accident prevention?[B][C]

TS 4:42 Lead a class discussion about hazards that might be found in the workplace. Emphasize the reasons employees should report potential hazards to the proper authorities. KEY QUESTION: Why is it important for employees to report potential hazards?

TS 4:43 Divide the class into cooperative learning groups. Instruct each group to prepare a checklist of classroom safety procedures. Ask students to evaluate classrooms in the school. Have students summarize findings in reports. Ask elected group leaders to share findings with the class.[B][C]

FIRE EMERGENCY PROCEDURES

TS 4:44 Display Teaching Aid 24, Fire Prevention Checklist. Lead a class discussion about how fires are started and how they may be prevented. Emphasize that employers usually assign specific duties to employees to help ensure fire safety for all employees. KEY QUESTIONS: Why do businesses have fire procedures to follow? Why are employees asked to help with fire safety procedures?

TS 4:45 Lead a class discussion about the variety of responsibilities that could be assigned to employees during a fire emergency. KEY QUESTION: Why is it important for everyone to work together in emergency situations?

TS 4:46 Invite a representative from the fire department to speak to the class about fire safety in the workplace. Ask the speaker to identify the most common fires that start in businesses. Guide students in preparing questions prior to the presentation.[B][C]

TS 4:47 Have FHA/HERO chapter members explain how to use fire extinguishers, fire safety procedures to follow, and the importance of smoke and heat detectors to elementary-age children. Instruct chapter members to prepare fire safety handouts for distribution to children in the school district.[B][C]

TS 4:48 Divide the class into cooperative learning groups. Instruct each group to work on a plan to determine fire safety procedures for the school. Have some of the groups meet with the principal to discuss current procedures to determine if revisions are needed. Have students participate in making revisions and posting the procedures in classrooms as well as indicating fire exits. Have an elected group leader summarize the outcome of the project. KEY QUESTIONS: Why is it important for everyone to be aware of fire safety procedures? What contributions can teenagers make in the decision-making process regarding fire prevention? Why should fire safety procedures be periodically updated?[B][C]

TS 4:49 Ask student volunteers to plan a fire drill. Instruct students planning the drill to evaluate participating students on performance and make recommendations for improvements. KEY QUESTIONS: What are the advantages of having routine fire drills? What can employers do to improve fire drills and fire safety procedures?

TS 4:50 Define *cardiopulmonary resuscitation (CPR)*. Lead a class discussion on CPR and conduct a CPR demonstration. KEY QUESTIONS: Why is it important for employees to be trained in CPR? What are common concerns about performing CPR?

TS 4:51 Lead a class discussion about the contributions engineering and maintenance departments can make during fire emergencies. Emphasize that firefighters need information on how electrical systems are connected and wired and where fire hoses, water hydrants, and electrical panels are located. Invite a representative from the school's maintenance department to speak to the class about procedures they would follow in a fire emergency. Guide students in preparing questions prior to the speaker's presentation. KEY QUESTIONS: Why is it important for maintenance personnel to assist in fire emergencies? What contributions can maintenance staff members make? What can maintenance personnel do to promote fire prevention?[B]

TS 4:52 Lead students to brainstorm for a list of items that should be removed if a fire occurs. Ask students to identify the items in the classroom that should be removed in case of a fire. Have an elected class leader assign student responsibilities for a fire emergency. KEY QUESTIONS: What determines the value of an item to be saved during a fire? How are employees selected to remove items?[B][C]

TS 4:53 Instruct students to develop a list of telephone numbers that should be kept near a telephone in case of a fire emergency. Ask each student to make a similar list for his or her home. KEY QUESTIONS: Why is it important to keep emergency numbers near a telephone? Why do some employers and households neglect to have emergency numbers near a telephone?

TS 4:54 Lead a class discussion about the different types of fires and appropriate extinguishers. KEY QUESTIONS: Why are ratings used on fire extinguishers? Why are there different extinguishers for different types of fires?

TS 4:55 Invite a firefighter to speak to the class about use and care of fire extinguishers. Ask the speaker to demonstrate how to use a fire extinguisher. Guide students in preparing questions to ask the speaker.[B]

TS 4:56 Display Teaching Aid 25, Classes of Fires. Lead a class discussion to identify steps in using a fire extinguisher. Ask a student volunteer to list the steps in a display location for the class. Have student volunteers prepare a visual display titled, "Play it Safe With Fire."

TS 4:57 Instruct students to prepare a skit on fire safety in the home. Ask students to include ways to safely extinguish a fire. Have students perform the skit for preschoolers and school-age children.[B][C]

MEDICAL EMERGENCY PROCEDURES

TS 4:58 Ask a student who has been properly trained to demonstrate the Heimlich maneuver. Lead a class discussion on the importance of training employees to use the Heimlich maneuver and CPR. Emphasize the correct procedures to follow when waiting for medical help. KEY QUESTIONS: What are the benefits of training employees to react to medical emergencies? Why is it important to keep a victim calm while waiting for medical help? What problems may arise if too many people try to help the victim of a medical emergency?

TS 4:59 Invite a paramedic to speak to the class about medical emergencies. Ask the speaker to emphasize procedures to follow in an emergency before professionals arrive. Guide students in preparing questions prior to the presentation.[B]

TS 4:60 Show an audiovisual on methods for handling medical emergencies. Instruct students to read from several sources and write papers about tips for safe and accurate emergency care. Have each student summarize his or her paper in an oral report.[B][C]

TS 4:61 Lead a class discussion about the severity of discussing fault, insurance, and medical coverage with people after an accident before authorities arrive. KEY QUESTION: What problems could arise when a person starts to discuss details of an accident before authorities arrive?

Severe Blood Loss

TS 4:62 Invite a school nurse to speak to the class about severe bleeding in an accident. Ask the nurse to identify the correct methods for controlling bleeding. Have the nurse identify pressure points. Guide students in preparing questions prior to the presentation.[B]

TS 4:63 Define *tourniquet*. Lead a class discussion about the correct method for applying a tourniquet to stop bleeding. KEY QUESTIONS: What are the advantages of tourniquet applications? What problems could arise with improper use of a tourniquet?

Maintaining Breathing

TS 4:64 Lead students to brainstorm to identify reasons a person may stop breathing. Some of these reasons may include the following: obstruction in the air passage, swelling due to damage of the air passage, acute asthma attack, lack of oxygen in the air, suffocation, electrical shock, poisoning, and drowning. Instruct each student to read from several sources about one of these causes of breathing problems. Have each student prepare a paper to summarize his or her findings.[B]

TS 4:65 Display Teaching Aid 26, CPR Procedures. Lead a class discussion about the correct methods for administering CPR. Emphasize the legal implications if a person is certified in CPR and does not offer help to the victim. KEY QUESTIONS: Why should employers and employees be familiar with CPR procedures? What health risks are involved with administering CPR?

Choking

TS 4:66 Lead a class discussion about the severity of choking. KEY QUESTIONS: What should be done to assist a choking person? What can cause choking? What can people do to prevent choking?

TS 4:67 Invite a school nurse to speak to the class about choking victims. Ask the nurse to explain the differences between symptoms of a choking victim and a heart attack victim. Guide student in preparing written questions prior to the presentation.[B]

TS 4:68 Lead a class discussion about the correct procedures for aiding a choking victim. Demonstrate the Heimlich maneuver. KEY QUESTIONS: What is the correct procedure for assisting a choking victim? Why is it important to know the correct procedure for assisting a choking victim? Why is it dangerous to strike a person on the back to dislodge an item lodged in the person's throat?

TS 4:69 Show students an audiovisual about the correct methods of caring for a choking victim. Instruct students to summarize the information in written papers. Evaluate students' papers for content and clarity.[B]

TS 4:70 Lead a class discussion to compare the similarities and differences in the chest thrust and abdominal thrust procedures for choking victims. KEY QUESTIONS: When is the chest thrust used on choking victims? What is the difference between the chest thrust and the abdominal thrust?

TS 4:71 Ask FHA/HERO members to write a skit that demonstrates the proper treatment for choking victims. Ask chapter members to perform the skit for elementary-age children. Have chapter members prepare visuals representing foods that become easily lodged in people's throats.[B][C]

Shock

TS 4:72 Lead a class discussion about the seriousness of shock. Emphasize the steps to take in assisting a victim to prevent shock. KEY QUESTIONS: What is shock? What makes the body go into shock? What are the symptoms of shock? What procedures should be used to treat and prevent shock? What steps can be taken to prevent shock?

Burns

TS 4:73 Divide the class into cooperative learning groups. Have each group develop a visual display on one of the following topics: severe blood loss; CPR; choking; shock; burns; and head, neck, or back injuries. Instruct elected group leaders to orally summarize display ideas.[B][C]

TS 4:74 Lead a class discussion about a common shock-related injury, burns. Instruct students to read from several sources about burns including burns from electrical accidents such as arc burns and thermal contact burns. Have students summarize findings in summary papers. Evaluate students' papers for content and clarity.[B]

TS 4:75 Invite a nurse to speak to the class about common accidents that occur in the workplace. Ask the speaker to discuss burns and first aid for burns. Guide students in preparing questions prior to the presentation.[B]

TS 4:76 Display Teaching Aid 27, Burn Classifications. Lead a class discussion about burn classifications and how to treat different classifications of burns. KEY QUESTIONS: What are the three classifications of burns? Why should each classification be treated differently?

TS 4:77 Lead a class discussion about preventive methods employees can take when working with burn-causing chemicals. KEY QUESTIONS: Why is it important that employers notify employees of chemicals they may be required to use? What are some preventive methods employees can take when working with burn-causing chemicals? What recommendations does OSHA make regarding use of harmful chemicals?

TS 4:78 Ask student volunteers to demonstrate procedures for helping a person whose clothing is on fire. KEY QUESTION: Why is it important to follow specific procedures when clothing is on fire?

Head, Neck, and Back Injuries

TS 4:79 Lead a class discussion about head, neck, and back injuries. KEY QUESTIONS: What signs should a person look for when providing first aid to a victim with head injuries? What first aid should be administered to prevent the victim from going into shock?

TS 4:80 Lead students to brainstorm to identify the variety of ways a person can injure his or her back on the job. KEY QUESTIONS: What preventive measures should an employee take to prevent back injuries? What procedures should be used to assist a person who has back injuries?

TS 4:81 Define *immobilize*. Lead a class discussion to define and demonstrate immobilization. KEY QUESTIONS: Why is it important to immobilize a victim with head, neck, or back injuries? What danger could occur if improper movement of the victim occurred?

5

Goals, Policies, and Procedures

ESSENTIAL ELEMENT

- Apply organizational goals, policies, and procedures.(q1E)

OBJECTIVES TO ACHIEVE

- Describe how goals, policies, and procedures influence business structures.
- Explain the importance of understanding the organizational structure of a business.
- Review how ethics, employee orientation, probation periods, attendance, performance appraisals, disciplinary action, dismissal, and resignation relate to organizational policies.
- Relate vacations and sick leave, uniforms and dress codes, use of time clocks, identification badges, work-related injuries, complaints and grievances, and labor unions to organizational policies.
- Discuss organizational procedures that influence the structure of a business.
- Outline how work schedules are used to manage employee work assignments.
- Describe methods used to compensate employees.

ASSIGNMENT

- Read Chapter Five in the *Apparel and Textiles Production, Management, and Services Reference Book.*

TS 5:1* Define *goal, policy,* and *procedures.* Divide the class into cooperative learning groups. Ask each group to determine a goal and develop a policy that includes step-by-step procedures. KEY QUESTIONS: Why is it important for apparel and textile businesses to have goals? Why are procedures written for policies? CRITICAL QUESTION: What is the relationship between goals and success in an apparel and textiles business?

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* TS 5:1 indicates teaching strategy, chapter 5, number 1.
[B] = Basic Skill Reinforcement
[C] = Common Essential Element

ORGANIZATIONAL GOALS

TS 5:2 Lead a class discussion to help students define *mission statement*. Display Teaching Aid 28, Mission Statement: Elements to Consider, to clarify the five elements considered when developing a mission statement. KEY QUESTIONS: Why do apparel and textile businesses develop mission statements? What are the advantages of creating a mission statement? What are the disadvantages of creating a mission statement? CRITICAL QUESTION: What is the relationship between a business' mission statement and its attitude toward customers?

ORGANIZATIONAL POLICIES

TS 5:3 Ask each student to write on a piece of paper the terms *chain of command* and *organizational chart*. Instruct each student to determine his or her own definition for each term. KEY QUESTIONS: Why is it important for employees to understand the organizational structure of a businesses? How can employees use their knowledge and understanding of a business to gain recognition or advancements?[B]

TS 5:4 Instruct students to illustrate the chain of command in the FHA/HERO chapter. Have students describe the responsibilities of each officer. Ask students to display the illustration in the classroom. KEY QUESTIONS: Why is it important to understand the organizational structure of an FHA/HERO chapter? What are the benefits of understanding the organizational structure of an FHA/HERO chapter?[B][C]

TS 5:5 Write or project the terms *company protocol* and *proper channels* on a board or screen. Ask students to write definitions for each word. Have students share their definitions. KEY QUESTIONS: Why should employees understand company protocol? What can happen when an employee does not follow proper channels? Why do businesses establish communication procedures among departments?

TS 5:6 Divide the class into cooperative learning groups. Ask each group to role play a negative situation that relates to company protocol or proper channels. Have class members critique each role play and determine a positive solution to each situation. Instruct each group to select a role play from the following list:

- A sales employee wants to take a day of vacation and informs another sales employee that he or she will be gone.
- A customer is upset with his or her purchase. A sales employee gives the customer the merchandise in addition to a refund.
- An employee in the advertising department is upset because an advertisement did not appear in the Sunday newspaper; the advertising employee decides to complain to the owner of the store.
- An employee in the merchandising division does not approve of the fall line and informs fellow employees of the inadequate stock.

TS 5:7 Lead a class discussion to define *management*, *mid-management level*, and *staff level*. Stress that all levels must work together in order for a business to be successful. KEY QUESTIONS: Why are different levels of employees dependent on each other? Why might management fail to understand staff-level concerns?

TS 5:8 Invite a representative from the apparel and textile business community to speak to the class about the various management levels in business. Have the speaker emphasize how the levels work together in implementing a business' policies. Guide students in preparing written questions prior to the presentation.[B]

TS 5:9 Define *accountability*. Divide the class into cooperative learning groups. Instruct each group to develop a plan for a business to document accountability. Accountability can be documented by charts, quarterly reports, staff meetings, and production records. Have elected group leaders share the accountability plans with the class. KEY QUESTIONS: What are the benefits of having an accountability plan? What might occur if an accountability plan is not developed?[B][C]

Ethics

TS 5:10 Ask each student to conduct interviews throughout the school to determine definitions for *ethics*, *code of ethics*, and *ethical behavior*. Have students include in each interview an opinion question that reflects American work ethic. Instruct each student to write his or her definitions in a summary paper. Have several students share their interviews with the class. KEY QUESTIONS: What similarities were found in the definitions? What differences were found in the definitions? Why do United States citizens support the work ethic? CRITICAL QUESTION: What changes would occur in our society if the work ethic continued to deteriorate?[B][C]

TS 5:11 Lead a class discussion about the work ethic in the United States. KEY QUESTIONS: What has society in the United States grown to expect from employed citizens? What obligations does one have as an employed citizen? Do all people in society value work in the same ways? Why?[C]

TS 5:12 Lead students to brainstorm to identify situations in which it would be important for textiles and apparel employees to display ethical behavior. Divide the class into cooperative learning groups and assign each group one of the identified situations. Instruct each group to determine the appropriate employee behaviors. Have elected group leaders describe the appropriate behaviors.[C]

TS 5:13 Invite a panel of successful men and women from the business community to speak to the class on society's expectations of workers. Have the panel members discuss honesty, moral integrity, and reliability as being traits that employers and customers expect from employees. Ask panel members to make recommendations for young people preparing to enter the work force. Guide students in preparing written questions for panel members before their arrival.[B][C]

TS 5:14 Instruct each student to write a philosophy paper on the work ethic in the United States. Students should use at least two references. Evaluate the papers for creativity, clarity, and content.[B][C]

TS 5:15 Lead a class discussion regarding unethical behavior in management. Point out that some management personnel participate in unethical behavior. Unethical behavior by management sends messages to employees that unethical behavior is acceptable or is overlooked. KEY QUESTIONS: Why is it important for all levels of employees to exhibit ethical behavior? What might occur if an employee is involved in the employer's unethical practices? What recommendations regarding ethical behavior can be made to all people in business?[C]

Employee Orientation

TS 5:16 Lead a class discussion to define *orientation*, *policy manual*, and *employee handbook*. KEY QUESTIONS: What is employee orientation? Why is it important for all employees to receive employee orientation? Why are employee handbooks developed? What is included in an employee handbook?

TS 5:17 Collect several policy manuals or employee handbooks for students to review. Divide the class into pairs and have each pair critique the manuals or handbooks. Lead a class discussion about the similarities and differences among the manuals and handbooks. KEY QUESTIONS: What similarities could be found in the manuals and handbooks? How frequently are manuals and handbooks updated? Why?

Probation Periods

TS 5:18 Lead a class discussion about probation periods. Have students determine advantages and disadvantages of a probation period from the employee's and employer's perspectives. KEY QUESTIONS: Why do most employers encourage a probationary period? What is expected of an employee during a probationary period?

Attendance

TS 5:19 Lead students to brainstorm to list reasons for having good attendance. Allow students to determine the relationship between good attendance and employee/employer relations. Instruct each student to analyze his or her school attendance record and summarize in a written paper. Have students include methods for improving attendance. KEY QUESTIONS: Why is attendance important in the workplace? What problems may result from excessive absenteeism or tardiness?[B]

Performance Appraisals

TS 5:20 Lead a class discussion to help students define *performance appraisals*. Have examples of appraisal forms for students to review. KEY QUESTIONS: Why are performance appraisals used in the workplace? What are the advantages of performance appraisals? What are the disadvantages of performance appraisals? How is a performance appraisal usually implemented? CRITICAL QUESTION: What is the relationship between performance appraisals and success of employees?

TS 5:21 Display Teaching Aid 29, Performance Appraisal Form. Lead a class discussion about the components of the appraisal form. Ask students to analyze the form and identify information that could be added or deleted.

TS 5:22 Lead students to brainstorm to list apparel and textiles job titles. Instruct each student to select one title and write a job description. Have students compile the job descriptions into a booklet. Use the job descriptions in the classroom as a resource. KEY QUESTIONS: Why is it important for an employee to be familiar with and to understand his or her job description? Why is it important for employers to provide written job descriptions when hiring new employees? Why are job descriptions reviewed during performance appraisal interviews?[B]

TS 5:23 Define *incident file*. Lead a class discussion about the types of information that are placed in an incident file. KEY QUESTIONS: Why do employers keep incident files? Why is it important to keep confidential information that verifies an employee's job performance? How are incident files used in completing employee performance appraisals?

TS 5:24 Select two students to role play a performance appraisal interview. Use Teaching Aid 30, Performance Appraisal Case Study, as a means for providing information for the role play. Videotape the role play and have the class critique it from the employer's and the employee's perspective. Instruct students to suggest ways to improve the performance appraisal interview.[B]

Disciplinary Action

TS 5:25 Display Teaching Aid 31, Disciplinary Action, and lead a class discussion. Ask students to determine reasons disciplinary action may be necessary. KEY QUESTIONS: Why do employers enforce disciplinary action? What are benefits of developing a disciplinary policy or plan? How should an employee respond if he or she feels that a disciplinary action is unfair?

TS 5:26 Show students an audiovisual that reflects inappropriate behaviors of an employee. Instruct each student to analyze the employee's behavior and determine the appropriate disciplinary action. Have each student summarize his or her decisions in a written paper. Evaluate papers for clarity and content.[B]

TS 5:27 Lead students to brainstorm to identify situations that can cause frustration in the workplace such as deadlines, new responsibilities, reorganization of the business, and promotions of employees. Emphasize that frustration can interfere with job performance. KEY QUESTIONS: What is the relationship between frustration on the job and disciplinary action? What can employees do to recognize and deal with frustrations?

Dismissal

TS 5:28 Write or project the words *dismissal* and *misconduct* on a board or screen. Instruct each student to write a definition for each of the terms. Lead students to brainstorm to identify examples of misconduct. KEY QUESTIONS: Should employees be terminated from their jobs when involved in misconduct? Why? What behaviors might be viewed as misconduct? For what reasons can an employee be dismissed from his or her job? CRITICAL QUESTION: How can dismissal or termination be detrimental to the employee?

Resignation

TS 5:29 Lead students to brainstorm to list reasons employees resign from their jobs. KEY QUESTIONS: Why do employees resign from their jobs? What steps should an employee take when resigning? Why is it important for employees to follow steps or procedures when resigning?

TS 5:30 Instruct each student to write a letter of resignation. Each letter should include the reason(s) for resigning and the last day the employee plans to work. Ask several students to share their letters with the class.[B]

Vacations and Sick Leave

TS 5:31 Lead a class discussion to define *vacation leave (annual leave)* and *sick leave*. Ask students to determine the differences between the two types of leave. KEY QUESTIONS: Why do employers offer vacation leave and sick leave to employees? Why do some businesses encourage taking vacation leave during certain times of the year?

TS 5:32 Divide the class into cooperative learning groups. Instruct each group to develop guidelines or policies for vacation leave and sick leave. Have elected group leaders share the guidelines with the class. KEY QUESTIONS: Why is it important for employers to have established guidelines or policies regarding vacation leave and sick leave? Why do some employers require a written statement by a doctor verifying why sick leave was taken? CRITICAL QUESTION: What is the relationship between vacation leave and work productivity?[B][C]

Uniforms and Dress Codes

TS 5:33 Lead a class discussion about apparel and textile businesses that have established dress codes. Emphasize that dress codes are usually related to the types of clothing acceptable for employees while they are at work. KEY QUESTIONS: Why do apparel and textile businesses establish dress codes? What are the advantages of establishing a dress code? What are the disadvantages for establishing a dress code?

TS 5:34 Divide the class into cooperative learning groups. Instruct each group to identify apparel and textile businesses that might require dress codes. Ask students to determine why the businesses chose to have dress codes. Have elected group leaders share the lists with the class.[B][C]

TS 5:35 Lead a class discussion about the different types of clothing required in the workplace. Ask students to work in pairs. Have each pair choose one of the following jobs and prepare a written description of the appropriate dress:

- entry-level position at a textile manufacturing plant
- entry-level position at an apparel manufacturing plant
- management position at an apparel manufacturing plant
- sales position at a retail apparel specialty store
- sales position at a retail apparel department store
- sales position at a retail apparel discount store
- buying position at a retail apparel department store

- management position at an apparel retail store
- sales position at a fabric store
- sales position at an accessory store

Have students explain the reasons for their choices. KEY QUESTIONS: Why does the dress code or uniform vary for each of the examples? Why are some employees compensated for wearing required uniforms? CRITICAL QUESTIONS: Does the FHA/HERO chapter have a dress code? Why?[B]

Use of Time Clocks

TS 5:36 Define *time clock*. Lead a class discussion about the advantages and disadvantages of using time clocks. KEY QUESTIONS: Why do some businesses use time clocks? What are the advantages of using a time clock? What are the disadvantages of using a time clock? CRITICAL QUESTION: How does use of a time clock affect productivity?

Identification Badges

TS 5:37 Lead a class discussion on reasons some apparel and textiles businesses require employees to wear identification badges. Emphasize that identification badges are worn to make the contact between an employee and a customer more personal and for security reasons. KEY QUESTIONS: Why do some businesses require employees to wear identification badges? What are the advantages of wearing identification badges?

Work-Related Injuries

TS 5:38 Lead a class discussion regarding procedures for reporting work-related injuries. Emphasize that witnesses to an injury must be named for worker's compensation reports. KEY QUESTIONS: Why is it important to report injuries immediately to a supervisor? How do employees benefit when employers have workers' compensation insurance?

TS 5:39 Lead students to brainstorm for types of injuries that can occur in the workplace. Ask students to identify procedures for reporting work-related injuries.

Complaints and Grievances

TS 5:40 Define *complaint* or *grievance*. Lead a class discussion on the correct procedures to follow when submitting a complaint or grievance. Point out that formal complaints and grievances are only submitted if the employee has a serious and legitimate disagreement with a work situation. KEY QUESTIONS: How should complaints and grievances be presented to an employer? Why should complaints and grievances be submitted to the employer rather than discussed with co-workers?

TS 5:41 Instruct each student to read Teaching Aid 32, Submitting a Complaint to Management, and compose a letter of complaint. Have several students share their letters with the class. KEY QUESTIONS: What information should be included in a letter of complaint? When should a letter of complaint be submitted?[B]

Labor Unions

TS 5:42 Lead a class discussion to help students define *labor unions*, *closed shop*, and *open shop*. Emphasize that not all textile and apparel industries are members of labor unions. KEY QUESTIONS: What are the advantages of labor unions? What are the disadvantages of labor unions? Why is open shop membership more desirable to some employees?

TS 5:43 Invite a member of a labor union to speak to the class about the impact labor unions have on industry. Ask the speaker to point out recent changes in labor laws and how they relate to his or her workplace. Guide students in preparing written questions prior to the presentation.[B]

TS 5:44 Show segments of the film, Norma Rae. Lead a class discussion about the difficulties that might occur in establishing guidelines for a labor union. Ask students to identify reasons some people oppose labor unions.

TS 5:45 Instruct students to read from several sources about the history of labor unions. Have students determine how labor unions were established. Ask each student to summarize his or her findings in a paper. Evaluate the papers for content and clarity.[B]

ORGANIZATIONAL PROCEDURES

Standard Operating Procedures

TS 5:46 Write or project the term *standard operating procedures (SOPs)* on a board or screen. Instruct each student to write a definition for SOP. KEY QUESTIONS: Why are standard operating procedures an important component of apparel and textiles businesses? Why do standard operating procedures differ among businesses?[B]

TS 5:47 Instruct each student to develop standard operating procedures for an apparel and textiles laboratory, classroom, or business setting. Ask each student to include guidelines as appropriate for the particular setting. Instruct each student to organize his or her information into a booklet. Ask volunteers to share their booklets with the class.[B][C]

TS 5:48 Have students interview individuals employed in the personnel departments of apparel and textile businesses to determine standard operating procedures of the businesses. KEY QUESTIONS: How frequently are standard operating procedures updated? Who makes decisions regarding the updating of standard operating procedures?

Job Performance Standards

TS 5:49 Lead a class discussion on job performance standards. KEY QUESTIONS: Why are job performance standards developed? What are the advantages, for both employer and employee, of having job performance standards? What are the disadvantages, for both employer and employee, of having job performance standards?

TS 5:50 Lead a class discussion on the types of information included in a job performance standard. Instruct each student to write a job performance standard. Have several students share their job performance standards with the class.[B]

WORK SCHEDULES

TS 5:51 Lead a class discussion to help students define *peak seasons* and *overtime*. Emphasize the relationship between peak seasons and overtime. KEY QUESTIONS: When are peak seasons for retail stores? When are peak seasons for apparel manufacturing plants? What must management consider during peak seasons? Why does management often ask employees to work overtime rather than hire additional employees?

TS 5:52 Define *rotation schedule*. Instruct each student to develop a rotation schedule for an apparel and textiles laboratory, classroom, or business setting. Have each student share his or her schedule with the class and explain why each decision was made.[B]

Shifts

TS 5:53 Lead a class discussion to define *shifts*. Emphasize that scheduling employees by shifts involves having one group of employees for each of several time periods during which a business operates. KEY QUESTIONS: What are the benefits of scheduling employees by shifts? Why do some employers schedule employees to work night hours?

COMPENSATION OF EMPLOYEES

TS 5:54 Write or project the word *compensation* on a board or screen. Ask each student to write a definition for the word. Have several students share their definitions with the class. Lead a class discussion about different types of compensation plans.[B]

Minimum Wage

TS 5:55 Instruct students to investigate the history of minimum wage. Have students study resources to determine the following:

- the year minimum wage was established
- the dollar amount of the first minimum wage
- the frequency of minimum wage increases
- the current minimum wage rate
- the projected minimum wage rate increases

Instruct each student to summarize his or her findings in a paper. Evaluate the papers for content and clarity.[B]

TS 5:56 Display Teaching Aid 33, History of Minimum Wage. Lead a class discussion on the frequency of minimum wage increases. Ask students to compare the minimum wage rate increases to the current rate of inflation. KEY QUESTION: What projections can be made for minimum wage increases? CRITICAL QUESTION: What is the relationship between minimum wage and costs of goods and services?

Incentives

TS 5:57 Define *incentive*. Lead students to brainstorm for types of incentives used to compensate employees. KEY QUESTIONS: Why do employers use incentives to compensate employees? What are the advantages of incentives? What are the disadvantages of incentives?

Compensation Plans

TS 5:58 Lead a class discussion about businesses that pay employees straight commission. Emphasize that a straight commission compensation plan pays an employee a specific percentage of the total volume sold. Use Teaching Aid 34, Compensation Plans, to help students understand straight commission. KEY QUESTIONS: Why are straight commission compensation plans decreasing in popularity? What are the advantages of paying an employee straight commission? What are the disadvantages of paying an employee straight commission?[B]

TS 5:59 Lead a class discussion to define *salary plus commission*. Point out that the salary plus commission method of compensation includes a set salary plus a percent of each sale as an incentive. Use Teaching Aid 34, Compensation Plans, to help students understand salary plus commission.[B]

TS 5:60 Lead students to brainstorm to identify the benefits of a salary plus commission method of compensation. KEY QUESTIONS: What are the advantages of a salary plus commission method of compensation? How does a salary plus commission method of compensation encourage growth and rewards?

TS 5:61 Write or project the term *salary plus commission-over-quota* on a board or screen. Instruct each student to write a definition for the term. Lead a class discussion identifying the similarities and differences between salary plus commission-over-quota and other methods of compensation. KEY QUESTIONS: Does salary plus commission-over-quota give employees enough incentives to work harder? Why? What different methods might a company use to compensate its employees?[B]

TS 5:62 Lead a class discussion to define *straight salary*. Point out that the straight salary compensation plan offers less incentive for an employee than other methods of compensation. KEY QUESTION: Why do employers choose to pay employees by the straight salary compensation plan?

6

Textiles and Apparel: Terminology, Use, and Care

ESSENTIAL ELEMENTS

- Apply correct textiles and apparel terminology.(q2A)
- Identify textile characteristics and care.(q2B)
- Relate textile characteristics to garment design, construction, alteration, and repair.(q2C)

OBJECTIVES TO ACHIEVE

- Identify the most common natural and manufactured fibers and the origins of each.
- Analyze properties of various fibers.
- Summarize how the cotton, wool, and worsted spinning systems are used to produce spun yarn of different classifications.
- Explain different methods by which fabric is produced from yarn.
- Describe various finishes used to prepare fabric for use, to influence appearance of fabric, and to improve fabric performance.
- Summarize qualities, uses, and care of various fibers and fabrics.
- Outline the fashion cycle and factors that influence consumer acceptance.

ASSIGNMENT

- Read Chapter Six in the *Apparel and Textiles Production, Management, and Services Reference Book.*

TS 6:1* Write or project the terms *fabric* and *cloth* on a board or screen. Instruct students to identify a textile term for each letter in the words *fabric* and *cloth*. Ask students to determine similarities in and differences between the definitions of the two terms.

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* TS 6:1 indicates teaching strategy, chapter 6, number 1.
[B] = Basic Skill Reinforcement
[C] = Common Essential Element

NATURAL FIBERS

TS 6:2 Ask each student to bring an article of clothing that is constructed of fabric made from a natural fiber. Lead students to brainstorm to identify a list of characteristics they find appealing about natural fibers. KEY QUESTIONS: Why do people purchase natural fibers? What are the advantages of wearing garments made of natural fibers? disadvantages?

Animal Fibers

TS 6:3 Lead a class discussion to define *wool, fleece, carding, worsted yarns,* and *woolen yarns*. Ask students to look at several samples of each to help in familiarizing themselves with wool products. Instruct students to identify the characteristics of wool. KEY QUESTIONS: What are the leading wool-producing countries? What is the purpose of carding? What are the differences in worsted and woolen yarns?

TS 6:4 Invite a resource person from the wool industry to speak to the class about new wool technologies. Have the speaker emphasize the reasons wool has remained a popular fiber. Guide students in preparing written questions prior to the speaker's presentation.[B]

TS 6:5 Show an audiovisual that describes the process used to produce wool from fleece. Instruct each student to write paragraphs that summarize the information presented in the audiovisual.[B]

TS 6:6 Have students examine swatches of wool fabric and identify the following properties of wool fibers:

- medium weight
- good resiliency when dry
- fair to excellent hand
- good drape and elasticity
- little static
- poor luster
- shrinkage when washed

KEY QUESTIONS: How do wool fiber characteristics directly affect the characteristics of fabric made from wool? What types of apparel and textile products are made from wool? CRITICAL QUESTION: Why do wool fibers make warm fabrics?[C]

TS 6:7 Lead a class discussion about the Wool Products Labeling Act of 1939. Emphasize the purpose of this act. KEY QUESTIONS: Why was the Wool Products Labeling Act passed? What are the benefits of having the Wool Products Labeling Act?

TS 6:8 Write or project the terms *wool, virgin wool,* and *recycled wool* on a board or screen. Instruct students to read from several references to determine definitions of each term. Have each student share his or her definitions in class. KEY QUESTIONS: Why is it important to include labeling information on wool products? What is the difference between virgin wool and recycled wool?[B]

TS 6:9 Lead a class discussion to define *silk* and *filament fiber*. Show students a silkworm in its cocoon. Display Teaching Aid 35, Silk, and lead a class discussion on the properties of silk.[B]

TS 6:10 Use the teacher guidelines provided on Teaching Aid 36b, Animal Fiber Experiments, to set up equipment and supplies for textile experiments. Have students perform burning, acetone, and bleach experiments on wool and silk fibers as directed on Teaching Aid 36a.[B][C]

TS 6:11 Divide the class into cooperative learning groups. Have students inspect mail-order catalogs for silk apparel and home furnishings items. Ask students to make a list of the number and types of silk products listed in the catalogs. Have elected group leaders share results with the class. KEY QUESTIONS: What can be concluded about the availability of silk products from the information found? Why do consumers purchase silk products?[B][C]

TS 6:12 Direct students to experiment with different types of silk textiles by applying water, water and detergent, heat from a dryer, and heat from an iron to fabric squares of different types of silk. KEY QUESTIONS: What changes occurred in the textile samples when exposed to water? water and detergent? heat from a dryer? heat from an iron? What conclusions can be made about caring for silk fabrics? CRITICAL QUESTION: What recommendations should be made to consumers before purchasing silk garments?[B][C]

TS 6:13 Lead a class discussion to define *specialty hair fibers*. Emphasize that these fibers are often classified as wools. Display Teaching Aid 37, Sources of Natural Fibers. Lead a class discussion regarding the sources of common and uncommon natural fibers. Discuss uncommon fibers such as flax, alpaca, and horse hair. KEY QUESTIONS: What are the animal sources of protein fibers? What items are made from flax? How is alpaca used in textile products? How is horse hair used in fabrics? CRITICAL QUESTION: What other sources of natural substances (such as cowhide) are used to make apparel and textile products?

TS 6:14 Display samples of camel hair, cashmere, mohair, and angora. Divide the class into cooperative learning groups. Ask each group to select one of the specialty hair samples to determine characteristics. Burning and solubility experiments may be performed to determine characteristics. Have an elected group leader share each group's findings with the class. KEY QUESTIONS: Why are cashmere and mohair clothing relatively expensive? How are the characteristics of cashmere and mohair similar to wool and silk? How are they different?[B][C]

Vegetable Fibers

TS 6:15 Instruct students to read from several references about cotton production. Ask each student to prepare a written summary from his or her readings. Select several of the papers to share in class. Evaluate students' papers for content and clarity.[B]

TS 6:16 Display Teaching Aid 38, Cotton Production. Lead a class discussion about the production of cotton in the United States. Emphasize the importance of climate for the cotton-growing season. KEY QUESTION: Which states are primary cotton-growing states? CRITICAL QUESTION: What conclusions can be made about the location of cotton-growing regions and the climate necessary for cotton production?[B][C]

TS 6:17 Show an audiovisual that describes cotton production. Lead a class discussion about cotton production and methods for determining a high quality cotton. Ask each student to summarize the presentation by writing brief paragraphs. KEY QUESTIONS: What are the steps in producing cotton? Why is cotton a versatile fiber? What are some less favorable qualities of cotton?[B]

TS 6:18 Instruct each student to list garments he or she wears that are made from cotton. Ask students to group the apparel items into categories. Lead a class discussion about the comfort and characteristics of cotton. KEY QUESTIONS: What properties of cotton make it a desirable fiber? When is cotton uncomfortable to wear? What categories of apparel items are typically made from cotton?

TS 6:19 Write or project the words *bast, flax,* and *hackling or combing* on a board or screen. Lead a class discussion about different types of bast fibers and plants used to produce these fibers. Display illustrations that describe the hackling or combing process that is used to separate the fibers. KEY QUESTIONS: What is retting? What is involved in the hackling or combing process? Which part of the flax plant is used to produce fiber? What is the oldest known fabric which is made from flax? Why is most flax fiber used in the United States today imported from other countries?

TS 6:20 Ask students to read from several references to find information on use of ramie fibers. Provide each student samples of ramie, linen, and ramie/cotton fabrics. Have each student compare the samples and write a brief paper comparing the strength, durability, and care of the fabrics. Ask volunteers to share their information with the class. KEY QUESTIONS: Do manufacturers presently use more ramie or linen fibers in clothing? Why? Are ramie garments more popular than linen garments? Why? Which characteristics of ramie/cotton blends are contributed by the ramie fibers? Which characteristics of ramie/cotton blends are contributed by the cotton fibers?[B][C]

TS 6:21 Divide the class into cooperative learning groups. Provide each group a sample of fabric made from a natural fiber. Instruct each group to unravel the samples to identify yarns and then unravel the yarns to identify fibers. Instruct each group to examine the yarns and fibers with a microscope, pick glass, or magnifying glass. Have a representative from each group share the group's information about fabric, yarns, and fibers with the class. KEY QUESTIONS: How do yarns made of different natural fabrics vary? How do the fabrics made of natural fibers appear different than those made from manufactured fibers?

TS 6:22 Use the teacher guidelines provided on Teaching Aid 39b, Vegetable Fiber Experiments, to set up equipment and supplies for textile experiments. Have students perform burning, acetone, and bleach experiments on cotton, ramie, and linen fibers as directed on Teaching Aid 39a. KEY QUESTIONS: How are cotton, ramie, and linen similar? How are they different?[B][C]

TS 6:23 Have students select partners. Instruct each pair to select the name of a natural fiber. Have each student develop a customer/salesperson role play where the salesperson convincingly sells the natural fiber apparel to the customer. Selling points may include the following items:

- characteristics of the fiber
- wearability
- cost
- versatility
- ease and expense of care

Videotape students to help them critique their communication skills when discussing fibers. KEY QUESTIONS: Why are some natural fibers easier to sell to customers than manufactured fibers? What are strong selling points for natural fibers? What do most customers want to know about the clothing they purchase?[B][C]

MANUFACTURED FIBERS

TS 6:24 Lead a class discussion to help students define *manufactured fibers*. Emphasize that at some point during manufacturing, the substance used to produce manufactured fiber is not in a fibrous state. KEY QUESTION: Why did the textiles industry begin manufacturing fibers? CRITICAL QUESTION: How would the world be different if manufactured fibers did not exist?[C]

TS 6:25 Lead students to brainstorm to list items produced using manufactured fibers. Instruct students to look through magazines to find pictures of items on the list. Have students use the selected pictures and/or illustrations to create a visual display.

TS 6:26 Lead a class discussion to describe the process used when manufactured fibers are made from parts of plants. Emphasize that many manufactured fibers have cellulose bases. KEY QUESTION: How are parts of plants converted to manufactured fibers?

TS 6:27 Display Teaching Aid 40, Steps in the Production of Manufactured Fibers. Lead a class discussion about the process used to change natural substances to manufactured fibers. KEY QUESTIONS: Why are plant fibers called cellulosic fibers? How is filament tow produced?

TS 6:28 Have each student illustrate the steps in the production of manufactured fibers by using the model on Teaching Aid 41, Producing Manufactured Fibers. Students should create a sketch in each part of the model to indicate the step listed. Display students' work in the classroom.[B][C]

TS 6:29 Provide each student a copy of Teaching Aid 42a, Manufactured Fibers. Ask students to classify manufactured fibers according to generic fiber categories. Have students describe the characteristics of fibers in each generic category on Teaching Aid 42a. Lead a class discussion regarding the large number of brand names of manufactured fibers within each generic category. KEY QUESTIONS: Which manufactured, generic fibers are popular? Which manufactured and natural fibers have similar characteristics? What would be the advantages of blending natural and manufactured fibers into one fabric?[B][C]

TS 6:30 Divide the class into cooperative learning groups. Give each group a rayon fabric sample, a nylon fabric sample, an embroidery hoop, an eyedropper, a stopwatch, and a copy of Teaching Aid 43, Fabric Absorption Tests. Have students follow the instructions on the teaching aid to perform fabric absorption tests with rayon and nylon. KEY QUESTIONS: Which fabric was more absorbant than the other? Why? Which fiber characteristics result in good absorbency? poor absorbency? Why?[B]

TS 6:31 Have students read from several references for information about manufactured fibers that add strength to fabrics. Instruct students to summarize the information in written papers. The papers should include names and descriptions of fibers and the names and uses of fabrics requiring additional strength. Have each student share his or her findings with the class. KEY QUESTIONS: Are natural or manufactured fibers used more frequently to add strength to a product? Why?[B]

TS 6:32 Instruct students to read from several references to determine the basic properties of manufactured fibers. Encourage each student to concentrate on the physical, chemical, and environmental properties of the fibers. KEY QUESTIONS: How do the properties of various manufactured fibers differ? How do fiber properties affect the use of fibers? How do fiber properties affect the handling of fibers?[B]

TS 6:33 Lead a class discussion about the effects bleach, detergent, and mildew have on various manufactured fibers. Have students work with partners to perform experiments on fabric swatches. Give students copies of Teaching Aid 44, Experiments with Manufactured Fibers. Instruct students to read the directions, conduct the experiments, and record the results.[B][C]

TS 6:34 Divide the class into cooperative learning groups. Instruct each group to develop a visual display that includes textile products from natural and manufactured fibers. Ask students to label his or her products with the types of fibers and characteristics of each fiber. Share the displays through open house and community awareness activities.[B][C]

Cellulosic Fibers

TS 6:35 Divide the class into cooperative learning groups. Assign each group a specific historical time period. Direct students to research the manufactured fibers developed during the assigned historical time period. Have each group include in the report the name of each fiber, when it was developed, characteristics of the fiber, and how the fiber is used. Have an elected group leader share each group report with the class.[B][C]

TS 6:36 Lead a class discussion about cellulosic fibers. Provide fabric samples of rayon, acetate, and triacetate for students to observe and examine. KEY QUESTIONS: What similarities do these textiles have to natural fibers? What clothing items do you have that you know are made of rayon or rayon blends? What qualities do you like about rayon? What are the characteristics of acetate? What are the characteristics of triacetate?

Noncellulosic Fibers

TS 6:37 Lead a class discussion about the manufacturing of noncellulosic fibers. Emphasize that several polymers are used to produce a noncellulosic fiber. KEY QUESTIONS: What is a polymer? How are polymers formed in natural fibers? How are polymers formed in manufactured fibers? What are some similar characteristics of different noncellulosic fibers?

TS 6:38 Lead a class discussion about classifying noncellulosic fibers with generic names. Emphasize that when a generic name is changed only slightly the fiber is called a variant.

TS 6:39 Ask students to read from several sources to determine various trademark names for each generic fiber name. Lead a class discussion about the reasons trademark names are used. KEY QUESTIONS: What is the difference between a generic name and a trademark name? Why would a manufacturer want to use trademark names?

TS 6:40 Have each student select a partner. Ask each pair to read from several references to create a flowchart that describes production of noncellulosic fibers. Have each pair summarize the flowchart in a summary paragraph and share it with the class.[B][C]

TS 6:41 For an FHA/HERO activity, have students prepare a display of nonwoven textile products with emphasis on fabrics for clothing, home furnishings, business furnishings, and commercial furnishings and applications. Ask chapter members to use the visual display to increase community awareness of how textiles are used in everyday life. Encourage the chapter members to include textile safety tips in the display.[B][C]

FIBER CHARACTERISTICS

TS 6:42 Lead a class discussion about the different characteristics or properties of fibers. Emphasize that properties used to describe fibers are used throughout the textiles and apparel industries and that understanding these basic terms helps in any textile and apparel employment setting.

TS 6:43 Divide the class into pairs. Ask each pair of students to create fiber property flashcards. Instruct students to place the fiber property on one side of the card and the name of the fiber on the other side. Have students practice describing fiber properties by using the flashcards.[B][C]

TS 6:44 Instruct students to examine a wide variety of fabric swatches. Lead a class discussion regarding why the fabrics feel and look as they do. Encourage students to consider fabric characteristics such as weight, strength, absorbency, ease of care, durability, comfort, resistance to weather, resiliency, and colorfastness. KEY QUESTIONS: What are the positive characteristics of each fabric? the negative characteristics?

FABRIC PRODUCTION

Production of Yarn from Fiber

TS 6:45 Lead a class discussion to define *monofilament* and *multifilament* yarns. Emphasize that tow is made of large bundles of continuous monofilaments twisted together. Ask students to write a definition for staple yarns. KEY QUESTIONS: What is the difference between monofilament and multifilament yarns? What is the relationship between tow and staple?

TS 6:46 Show an audiovisual that describes the production of yarn from fiber. Following the presentation, instruct students to write summary paragraphs about the process.[B]

TS 6:47 Write or project the terms *filament yarn, spun yarn, cotton system, wool system*, and *worsted system* on a board or screen. Instruct each student to define the terms by writing definitions. Lead a class discussion about each of the types of yarns and the spinning systems. KEY QUESTIONS: How does the construction of a cotton yarn differ from the construction of a woolen yarn? Which type of yarn is more expensive to produce? Why? How are blended yarns made?[B]

TS 6:48 Show students samples of fabrics made from filament yarns and from staple yarns. Have students feel the fabrics to compare and determine differences.[B]

Classifications of Yarns

TS 6:49 Instruct students to read from several references and define the following terms related to classifications of yarns: *slub yarns, ratine yarns, bouclé yarns, crepe fabrics, stretch yarns, cord yarns, simple yarns, blended yarns*, and *combination yarns*. Ask students to record the definitions and to be prepared to discuss them with the class.[B]

TS 6:50 Display samples of club, ratine, bouclé, and crepe yarns. Lead a class discussion about the characteristics of each. Lead students to brainstorm to identify textile and apparel items that are produced using one of the methods for fabric production.[B]

TS 6:51 Have students find samples of single-ply yarn, multiple-ply yarn, and cord yarn. Ask volunteers to create a visual display using the various samples of yarns. KEY QUESTIONS: When would single-ply yarn be used? multiple-ply? cord yarn? When could cord yarn be used in apparel or textiles production?[B]

Production of Fabric from Yarn

TS 6:52 Lead a class discussion about the process of felting. Emphasize that only certain fibers are felted. KEY QUESTIONS: Why are fibers used for felting? What are some of the characteristics of felted fabrics?

TS 6:53 Provide several samples of nonwoven bonded fabrics. Ask students to carefully observe and feel the samples. Instruct each student to write a paragraph that describes and defines *nonwoven, bonded fabrics*.[B]

TS 6:54 Instruct students to research uses of nonwoven fabrics in homes, businesses, and industries. Have each student write a short report of his or her research findings and share the information with the class.[B][C]

TS 6:55 Display Teaching Aid 45, Woven Fabrics. Have several fabric samples available for students to examine. Lead a class discussion about warp yarns, weft yarns, and the selvage of fabric. Emphasize the characteristics and functions of each.

TS 6:56 Demonstrate plain, twill, and satin weaves using a potholder loom or a computer. Divide the class into cooperative learning groups. Instruct the groups to recreate the weaves. KEY QUESTIONS: Which weave is the strongest? Which weave is least durable? Which weave is the most common?[B]

TS 6:57 Instruct students to evaluate various weaves by unraveling samples of woven fabrics. Ask students to compare the actual fabric weaves to diagram fabrication methods. Instruct each student to write short paragraphs summarizing his or her comparisons.[B]

TS 6:58 Have each student cut twenty fabric strips (ten strips of one color and ten strips of another color). Have students refer to the *Apparel and Textiles Production, Management, and Services Reference Book*, page 85. Instruct students to use the fabric strips to duplicate the plain weave, basket weave, and twill weave. KEY QUESTIONS: Is the basket weave more or less stable than the plain weave? Why? Is the twill weave more or less stable than the plain weave? Why? Which weave is the most durable? Why? Which weave is more likely to snag? Why?[B]

TS 6:59 Divide the class into cooperative learning groups. Assign each group a specific task in preparing a visual display that reflects a plain weave, basket weave, and twill weave. Have students include samples of weaves, illustrations, and descriptions.[B]

TS 6:60 Instruct student to work in pairs to design weaves. Have students write short descriptions regarding the characteristics, appearance, durability, and maintenance of the weaves. Ask each student to share his or her weaves and descriptions with the class or present an illustrated talk describing the different weave types.[B][C]

TS 6:61 Instruct students to research various sources to secure information on the use of computers to produce woven fabrics. Ask each student to share his or her findings with the class. KEY QUESTION: How has the use of computers affected the textiles and apparel industries? CRITICAL QUESTION: What projections can be made about the computerization of the textiles and apparel industries?[B][C]

TS 6:62 Instruct students to examine samples of weft-knitted fabrics and warp-knitted fabrics. The samples should include the following: rib, interlock, double-knit, jersey, and tricot. Have students compare the knit fabrics and define *weft* and *warp knits*. Provide references so each student may expand his or her definition. KEY QUESTIONS: What are the characteristics of warp knits? What are the characteristics of weft knits?[B]

TS 6:63 Lead a class discussion about the advantages and disadvantages of knits. KEY QUESTIONS: What types of clothing are constructed using weft knits? warp knits?

FABRIC FINISHES

TS 6:64 Lead students to brainstorm to identify reasons finishes are applied to greige goods and the importance of fabric finishes. Have students examine fabric labels to identify finishes that make the care of fabrics easier. Ask students to identify the most common finishes. KEY QUESTIONS: How can a garment's fabric finish influence a consumer's fabric selection decision? Why are two or more finishes applied to some fabrics? Where can information about fabric finishes be obtained in fabric stores, apparel stores, and furniture stores?[B]

Finishes that Prepare Fabrics for Use

TS 6:65 Instruct students to read from several references and define the following terms related to preparing fabrics for use: *cleaning*, *bleaching*, *shrinkage control*, *singeing*, *calendering*, *tentering*, *on-grain*, *off-grain*, and *crabbing*. Ask students to record definitions and be prepared to discuss them with the class.[B]

TS 6:66 Lead a class discussion about the cleaning and bleaching of greige goods. KEY QUESTIONS: What process is used to clean cotton greige goods? What process is used to clean linen greige goods?

TS 6:67 Invite a resource person to speak to the class about the process of bleaching denim. Ask the speaker to bring several samples of jeans fabric for students to examine. Have students prepare questions prior to the speaker's presentation.[B]

TS 6:68 Divide the class into cooperative learning groups. Instruct students to read from several sources about shrinkage control. Ask each student to write paragraphs about his or her findings. Have an elected group leader share the findings with the class.[B][C]

TS 6:69 Have a variety of fabric samples available for students to evaluate. Ask students to select a partner and give each pair two fabric samples. One sample should have no finish applied and the other sample should be treated with a finish for shrinkage control. Instruct students to measure the length and width of each sample and then wash and dry the samples several times. Students should observe and measure the amount of shrinkage that occurs. KEY QUESTIONS: How did the fabric finish aid in controlling shrinkage? Did shrinking occur after washing? after drying? CRITICAL QUESTION: Why did the shrinkage occur?[C]

TS 6:70 Show an audiovisual about finishes that are applied to greige goods. Instruct students to prepare a visual display and descriptions that reflect the fabric finishes.[B]

TS 6:71 Lead a class discussion about the processes of singeing and calendering a fabric. Inform students of the benefits of each of these processes. KEY QUESTIONS: What is the purpose of fabric singeing? calendering?

TS 6:72 Have samples of various types of fabrics that are on-grain and off-grain. Ask students to carefully observe each fabric sample and draw conclusions in summary paragraphs about off-grain and on-grain fabrics. Have student volunteers share conclusions with the class. Lead a class discussion about the process of tentering and its effect on off-grain and on-grain fabrics.[B]

Finishes that Affect Appearance

TS 6:73 Instruct student to read from several references and define the following terms related to how finishes affect appearance: *mercerizing*, *sizing*, *napping*, *shearing*, *sueding*, *embossing*, *dyeing*, *printing*, *engraved roller printing*, *screen printing*, and *heat transfer printing*. Ask students to record the definitions and be prepared to discuss them with the class.[B]

TS 6:74 Have a variety of fabrics available for students to use to test sizing products available for consumer purchase. Ask each student to select a partner. Have each pair of students select three fabric samples for an experiment. Instruct students to use three sizing products on the fabric samples (two or three times) and wash the fabric samples between applications. Have students record changes that occur. Ask each pair to record and summarize findings. Have students share their findings with the class.[B][C]

TS 6:75 Lead a class discussion about the procedures of napping, shearing, sueding, and embossing. Show sample fabrics made by each of these processes. Lead students to brainstorm to identify the similarities and differences between the fabrics.[B]

TS 6:76 Show students samples of fabrics that represent the various types of dyeing. Dyeing variations include the following: stock dyeing, solution dyeing, yarn dyeing, piece dyeing, resist dyeing, and cross dyeing. Provide sample fabrics to illustrate each dyeing process and have students determine which dyeing process was used in production of each sample.[B][C]

TS 6:77 Instruct students to experiment with different dyes available to consumers. Have students practice with different types of fabric swatches and articles of clothing. Ask students to record their findings. KEY QUESTIONS: Which dye treatment was most effective in coloring the fabric? What type of treatment will give the fabric and finished garment the highest quality? Which treatment is the most difficult to use? Why?[B]

TS 6:78 For an FHA/HERO activity, have chapter members select two or three logo designs to use for a community service project. Have chapter members work with the art department in designing a screen print pattern to use on T-shirts. Have chapter members screen print T-shirts, banners, and posters to initiate the community service project.[B][C]

TS 6:79 Lead a class discussion about engraved roller printing, screen printing, and heat transfer printing. Have fabric samples to illustrate each printing process for students to examine. KEY QUESTIONS: Which of these printing processes is the most economical? Why? Which of these printing processes may result in the design wearing off over time? Why?

TS 6:80 Divide the class into cooperative learning groups. Assign a printing method to each group. Have each group research the origin of the assigned printing method and share findings in an oral report. Each group should obtain a fabric sample produced using the assigned printing process and a drawing or photograph of the equipment used in the printing process.[B][C]

Finishes that Improve Performance

TS 6:81 Instruct students to read from several references and define the following terms related to finishes that improve performance: *wrinkle resistance, water-repellent finishes, mothproofing*, and *insulation*. Ask students to record the definitions and be prepared to discuss them with the class.[B]

TS 6:82 Lead a class discussion about the finishes used to cause fabrics to resist wrinkles and repel water. Ask students to determine the benefits of each finish. KEY QUESTIONS: Why are wrinkle-resistant and water-repellent finishes applied to fabrics? What articles of clothing are most often treated with a water-repellent finish? On what nonapparel products could water-repellant finishes be used? CRITICAL QUESTION: How does adding different finishes to a fabric influence the cost of a product made from the fabric?

TS 6:83 Arrange for students to participate in a field trip to a fabric store. Instruct students to examine labels on ends of fabric bolts to determine the finishes applied to the fabrics. Ask students to examine each fabric and record adjectives that describe how the fabric feels. Have each student write a summary report about fabric finishes. Evaluate the papers for content and clarity.[B][C]

TS 6:84 Instruct students to examine clothing labels to discover finishes that make fabrics easy to care for. Ask students to identify the most common finishes used. Common finishes include the following: preshrinking, mercerizing, napping, calendering, bleaching, wrinkle resistance, waterproofing, water repellency, and flame-retardance. Lead a class discussion about the importance of fabric finishes.

TS 6:85 Present an illustrated lecture about primary finishes applied to fibers and fabrics. Include labels and advertisements that identify common finishes. KEY QUESTIONS: Why are finishing processes necessary? How can finishes deceive the customer? Which finishes are visible? invisible? CRITICAL QUESTION: Why should consumers investigate positive and negative factors associated with finishes?[C]

QUALITIES, USES, AND CARE OF FIBERS AND FABRICS

TS 6:86 Instruct students to examine a wide variety of fabric swatches. Lead a class discussion regarding why the fabrics feel and look as they do. Encourage students to consider fabric characteristics such as weight, strength, absorbency, ease of care, durability, comfort, resistance to weather, and colorfastness. KEY QUESTION: What are the advantages and disadvantages of each fabric?

TS 6:87 Lead students to brainstorm to identify characteristics consumers expect fabrics to have. CRITICAL QUESTIONS: What is the perfect fiber? How should the perfect fiber be used to construct fabric?

TS 6:88 Have each student draw a name of a fiber from a bowl and read from several references about the recommended care methods and suggested uses of the selected fiber. Ask students to summarize findings in written and oral reports. KEY QUESTIONS: What fibers require the least care? What fibers require the most care? Why do some fibers require more care than others?[B][C]

TS 6:89 Lead a class discussion about the 1972 Care Labeling Act. Have students determine the importance of this act. KEY QUESTIONS: Why was the 1972 Care Labeling Act established? What is the purpose of the 1972 Care Labeling Act? Are all garments required to have a care label? Why?

TS 6:90 Distribute garment care labels and care information found on fabric bolts. Instruct students to read the label information and determine the appropriate fabric cleaning procedures. Ask student volunteers to lead a class discussion about the label instructions. KEY QUESTIONS: What information is included on a care label? What do the care label symbols mean? How do fiber qualities influence use and care of the resulting fabrics?[B][C]

TS 6:91 Instruct each student to prepare a visual display and oral presentation about the use and care of a specific fiber. Have students include examples of garments manufactured from the fiber, care of the fiber, approximate cost of apparel items manufactured from the fiber, and future projections for the use of the fiber.[B][C]

CONSUMER ACCEPTANCE OF APPAREL

TS 6:92 Write or project the term *style* on a board or screen. Instruct each student to record his or her definition. Lead a class discussion about style. Ask students to identify examples of one item of clothing and the different styles of each identified item.

TS 6:93 Instruct students to read from several references and define the following terms related to fashion: *designs*, *style number*, *line*, *classic*, *fads*, *fashion trends*, *forward fashions*, and *fashion cycle*. Ask students to record the definitions and be prepared to discuss them with the class.[B]

TS 6:94 Instruct students to read from selected references to gather information about fashion cycles. Display Teaching Aid 46, Fashion Cycle. Lead a class discussion during which students review the terms *trend*, *fad*, and *high fashion*. Solicit student opinions about classics and recurring fashion cycles. Encourage students to consider how classics and recurring fashion cycles relate to fashion trends. KEY QUESTIONS: What is a fashion cycle? What is a fashion trend? What is a fashion fad? What is the difference between style and fashion? CRITICAL QUESTIONS: Why do some trends recur more than others? When does a fad or trend become a fashion? When does a fashion become a classic?[B]

TS 6:95 Instruct students to look through magazines to find examples of classic apparel, fads, and styles. Ask students to create a visual display that includes illustrations of each. Have students write brief descriptions of the apparel examples they chose. Display the illustrations in the classroom.[B]

TS 6:96 Have each student select a partner. Have students research the theory of the fashion cycle. Instruct each pair of students to identify an article of clothing and describe how it has progressed through a fashion cycle. Encourage students to find example illustrations or sketch the articles of clothing at different stages of the fashion cycle.[B][C]

TS 6:97 Lead a class discussion about fashion in history. Encourage students to identify historical clothing that has been adapted to create current fashions. KEY QUESTIONS: Why do some apparel items recur through history? What apparel items of today were strong and popular items throughout history? What types of influences in our society have an impact on fashion trends?[C]

TS 6:98 Show an audiovisual that describes forward fashion and fashion cycle. Instruct students to write brief paragraphs that summarize the presentation. Ask each student to share his or her summaries in class.[B]

7

Selection of Fabrics and Notions for Garment Design

ESSENTIAL ELEMENT

- Select fabrics and notions suitable for garment design.(q3A)

OBJECTIVES TO ACHIEVE

- Analyze factors to consider when selecting fabrics for apparel construction including grain, weight, and hand of fabrics.
- Identify factors to consider when selecting patterned, printed, napped, sueded, and pile fabrics.
- Describe how and why shaping fabrics are used in construction of apparel.
- Summarize methods used for estimating yardage required for sewing projects.
- Identify notions used in apparel construction.

ASSIGNMENT

- Read Chapter Seven in the *Apparel and Textiles Production, Management, and Services Reference Book.*

SELECTION OF FABRIC FOR APPAREL

TS 7:1* Lead a class discussion to help students define *fabrication*. Emphasize that fashion designers communicate artistically through the selection or creation of fabric. KEY QUESTIONS: Why is it important to understand how patterns and fabric complement each other? How are fabric recommendations made?

TS 7:2 Divide the class into cooperative learning groups. Ask each group to study several pattern envelopes to determine the recommended fabrics for the garments. Instruct students to draw conclusions about each garment style and the suggested fabrics. Have elected group leaders share conclusions with the class.[B][C]

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* TS 7:1 indicates teaching strategy, chapter 7, number 1.
[B] = Basic Skill Reinforcement
[C] = Common Essential Element

TS 7:3 Show a commercially prepared or videotaped audiovisual depicting current fashions. Lead a class discussion about the types of garments being designed and the types of fabrics chosen by fashion designers. KEY QUESTION: What influences a designer's decision about fabric selection?

TS 7:4 Instruct students to select two fabric swatches for use in designing two garments. Ask students to sketch garments or trace garment parts from pattern catalogs or magazines. Have each student use colors on the fashion sketches that match the colors of the selected fabric swatches. Have each student describe his or her garments in a summary paper and state why he or she chose the styles and the fabrics. Display student designs in the classroom or other location in the school.[B]

Grain of Fabric

TS 7:5 Display Teaching Aid 47, Grain. Lead a class discussion to help students define *grain*. Emphasize that when the warp and filling yarns intersect at right angles, the fabric is on-grain. KEY QUESTIONS: Why is it important for fabric to be on-grain before garment construction begins? What methods can be used for straightening fabric? Can all fabrics be straightened? Why?[B]

TS 7:6 Demonstrate the process of straightening fabric grain. Use the method described on page 97 of *Apparel and Textiles Production, Management, and Services Reference Book*. Have each student practice straightening fabric using remnants. KEY QUESTION: What other methods exist for straightening the grain of fabric?

TS 7:7 Arrange for students to participate in a field trip to a fabric store. Ask students to carefully observe the bolts of fabric to determine if they are on-grain or off-grain. KEY QUESTIONS: Are all fabrics on-grain in a retail fabric store? Who should be responsible for checking the grain of fabric in a retail store? Are off-grain fabrics commonly sold in retail stores? What should a consumer do when he or she discovers that fabric in a retail store is off-grain?

TS 7:8 Instruct students to evaluate apparel in retail stores. Have students select a discount store, a department store, and a specialty shop. Ask students to carefully evaluate garments in each of the three locations. Have students observe how the garments hang, construction techniques, hand and weight of the fabric, and finishing techniques. Emphasize that different types of retail businesses sell apparel of different quality and that price and brand are not always evidence of quality. Also, caution students that the purpose of gathering information on merchandise in different stores is for education and that discretion is recommended so that businesses in the community are not offended. Instruct students to summarize observations in summary reports. Evaluate papers for content and clarity.[B]

Weight and Hand of Fabrics

TS 7:9 Define the terms *fabric performance*, *weight*, and *hand*. Lead a class discussion about the specific properties of fabrics and how those properties change with fiber content, fabric construction methods, and fabric finishes.

TS 7:10 Lead a class discussion about how fabric choices vary for different apparel styles. Emphasize that worsted wools, gabardines, and linens are appropriate for tailored looks and softer fabrics such as crepe, jersey, and chiffon work better for soft, draped designs. KEY QUESTIONS: Why is it important for consumers to understand weight and hand when selecting patterns and fabric? Why are lighter-weight fabrics recommended for items such as shirts and blouses and heavier-weight fabrics recommended for skirts, slacks, pants, and cold-weather clothing?

TS 7:11 Ask each student to select a partner. Have each pair select fabric swatches that are heavyweight and lightweight. Instruct students to gather the samples and make recommendations about how the fabric might be successfully used in garment construction. Have students share recommendations with the class.[B]

TS 7:12 Instruct students to create visual displays showing fabrics and selected styles that complement each other. Have each student write a descriptive summary for his or her display. Share the displays with the class.[B]

TS 7:13 Define the terms *ounces per yard, yards per pound*, and *ounces per square yard*. Lead a class discussion about how types of fabric are often identified by weight in the apparel manufacturing industry. KEY QUESTION: Why do many apparel manufacturers refer to fabric using weight terminology?[B]

TS 7:14 Have students read from several references to define the following terms: *relatively lightweight fabrics, top-weight fabrics, bottom-weight fabrics, medium-weight fabrics, heavyweight fabrics*, and *very heavyweight fabrics*. Ask students to record the definitions and be prepared to discuss them with the class. KEY QUESTIONS: Why are there a variety of weight classifications for fabrics? How does a customer learn which fabric weights to choose for different garment styles?[B]

TS 7:15 Instruct students to write papers regarding the selection of fabrics. Have students include how seasons and style of clothing influence fabric choices. Evaluate student papers for writing style, content, and clarity.[B][C]

Fabric Patterns and Prints

TS 7:16 Display Teaching Aid 48, Example Fabric Motifs. Lead a class discussion to assist students in defining *motif*. Emphasize that a motif should be scaled appropriately to complement the design of the garment. KEY QUESTIONS: What is the relationship between a motif and garment style? How can the appearance of a motif be altered? CRITICAL QUESTION: What is the relationship between body size and shape and the selection of a fabric motif?[B]

TS 7:17 Lead a class discussion to define the term *repeat*. Provide samples of fabrics for students to critique. Samples should include floral and geometric patterns. Stress that it is especially important to match large motifs and patterns since mistakes in matching such designs are particularly noticeable. KEY QUESTIONS: Why does a fabric with large motifs require more yardage than fabric with small motifs? How does the type of motif or pattern on a fabric influence the cost of a garment made from that fabric?

TS 7:18 Display Teaching Aid 49, Directional Prints. Lead a class discussion to help students define *one-way prints*, *two-way prints*, and *border prints*. KEY QUESTIONS: What are some disadvantages of working with prints? Which prints are the most difficult to use? Why?

TS 7:19 Ask student volunteers to create a visual display that depicts directional prints. Have remaining class members write definitions or descriptions of the patterns. Select the most complete descriptions to accompany the visuals created for the display.[B]

Napped, Sueded, and Pile Fabrics

TS 7:20 Write or project the terms *napped fabrics*, *sueded fabrics* and *pile fabrics* on a board or screen. Instruct students to record definitions for the terms. Have students share definitions with the class. Lead a class discussion about garment construction using napped, sueded, and pile fabrics. KEY QUESTIONS: Why is it important to understand changes napped fabrics can create on a garment design? What recommendations can be made about purchasing napped, sueded, or pile fabrics?[B]

TS 7:21 Show an audiovisual that describes the preparation of fabric for sueding. Lead a class discussion about the types of garments that would be most appropriate with a sueded texture. KEY QUESTIONS: What types of fabrics would be best suited for a sueded fabric? How do sueded fabrics differ from napped fabrics? pile fabrics?

TS 7:22 Instruct students to read from several references to define the following terms related to fabric texture: *nap*, *gigging*, and *raising*. Ask students to record the definitions and be prepared to discuss them with the class.[B]

TS 7:23 Instruct each student to select three fabric swatches to critique using Teaching Aid 50, Napped, Sueded, and Pile Fabrics. Ask students to record similarities in and differences between the fabrics. Have students share findings with the class.[B]

TS 7:24 Have students examine several garments. Instruct students to comment about the hand and weight of the fashion fabrics. Lead a class discussion about the variety of available fabrics. KEY QUESTIONS: Why do fashion fabrics make garments unique? What fashion fabrics are best suited for casual wear? career wear? formal wear?[B]

Fabrics that Shape Garments

TS 7:25 Instruct students to read from several references to define the following terms related to fabric texture: *shaping fabrics*, *interfacing*, *fusible interfacing*, *lining*, *underlining*, and *interlining*. Ask students to record the definitions and be prepared to discuss them with the class.[B]

TS 7:26 Lead a class discussion about shaping fabrics. Emphasize that these fabrics add crease-resistance, firmness, warmth, and body. KEY QUESTIONS: On what articles of clothing are shaping fabrics commonly used? What parts of clothing in garment construction typically require shaping fabrics?

TS 7:27 Display Teaching Aid 51, Selecting Shaping Fabrics. Lead a class discussion about the guidelines for selecting appropriate shaping fabrics. KEY QUESTIONS: What is the recommended weight for shaping fabrics? Why should the finish of the shaping fabric be similar to that of the fashion fabric? Why is it important for the care of the shaping fabric to be similar to that of the fashion fabric?[B]

TS 7:28 Show students large samples of shaping fabric and fashion fabric. Demonstrate draping the two fabrics together. Lead a class discussion about the weight and texture of the two fabrics. Have students feel the weight and hand of the fabrics and assess the compatibility of the two. KEY QUESTIONS: Why do the fabrics complement each other? What recommendations could be made about the selection of shaping fabrics?

TS 7:29 Display Teaching Aid 52, Interfacing. Lead a class discussion about the interfacing available for consumer purchase. Show students samples of interfacing choices available in stores.

TS 7:30 Lead a class discussion about linings. Emphasize that linings provide a finished look inside a garment. Display Teaching Aid 53, Lining, to help students visualize lining application. KEY QUESTIONS: What are some desirable characteristics of linings? How does lining differ from interfacing?

TS 7:31 Prepare a demonstration that describes step-by-step procedures for adding underlining to a garment. Emphasize that underlining can be light to medium in weight with soft, medium, or crisp finishes. KEY QUESTIONS: Why is underlining added in garment construction? How does underlining differ from lining?

TS 7:32 Lead a class discussion about the use of interlining in garments. Explain that typically, interlining is used in the body of a winter coat or jacket, and sometimes in the sleeves. KEY QUESTIONS: Why is interlining added in garment construction? How does interlining differ from lining? underlining?

TS 7:33 Instruct students to create a visual display that shows examples of clothing and the appropriate shaping fabrics for each type of garment. Have students write brief descriptions about the shaping fabrics. Share the displays with the class.[B]

Estimating Yardage

TS 7:34 Write or project the term *yardage* on a board or screen. Have students write definitions of the term. Lead a class discussion about estimating yardage. KEY QUESTIONS: What methods can be used to determine yardage for garment construction? What method is the most accurate? Why?

TS 7:35 Lead a class discussion to define *views*. Emphasize that garment views shown on a pattern envelope are slightly different and these differences affect the required yardage. KEY QUESTIONS: Can pattern views on the same envelope be interchanged? Why? What recommendations should be made for yardage amounts if pattern views are interchanged?

TS 7:36 Provide pattern envelopes for students to review. Ask students to identify yardage needed for the different views that appear on the pattern envelopes. Each student should identify yardage needed according to his or her pattern size. Instruct students to record yardage information.[B]

TS 7:37 Lead a class discussion to help students define the term *with nap*. Display sample garments that required more yardage because of the nap, pile, or one-way print of the fabric.

TS 7:38 Lead a class discussion about the use of a fabric width conversion chart. Emphasize that since fabric may be wider than widths listed on a pattern envelope, a customer may estimate yardage or use a fabric width conversion chart. KEY QUESTION: What are the advantages of using a fabric width conversion chart?

TS 7:39 Lead a class discussion using Teaching Aid 54, Estimating Yardage, to help students remember simple tips in yardage estimation. KEY QUESTIONS: What is important to remember when estimating yardage? When in doubt of yardage amounts, what recommendation should be made to a customer?

SELECTION OF NOTIONS FOR APPAREL

TS 7:40 Provide several pattern envelopes for each student. Instruct students to record the notions required for each of the garments illustrated on the pattern envelopes. Ask students to write a paragraph about why notions are important in garment construction. KEY QUESTIONS: How are notions selected for garments? Why is it difficult for some people to choose the correct notions for garments? CRITICAL QUESTION: What is the relationship between purchasing quality fashion fabric and selecting notions?[B]

TS 7:41 Lead a class discussion about notions and what types of notions are currently in fashion. Point out that notions change as fashions change. KEY QUESTIONS: Why do designers change notion requirements? Why is it important for notions to complement garment design and fashion fabric selection?

TS 7:42 Ask each student to select a partner. Instruct each pair of students to choose a topic from the following list:

- thread
- straight pins
- hand needles
- machine needles
- fasteners
- tapes
- trims
- shaping aids
- elastics
- fusibles

Have students prepare an illustrated talk and a written summary about the selected notion. Evaluate student presentations on creativity, content, and clarity.[B]

TS 7:43 Divide the class into cooperative learning groups. Assign each group a notion category. Have group members prepare flashcards by including a picture or sketch of a notion in addition to the written name of the notion on the front of each card. Have students write the characteristics and uses of each notion on the back of the card. Instruct students to use the flashcards to review the variety of notions available.[B]

TS 7:44 Ask student volunteers to create a visual display of notions. Have students creatively arrange the visuals in categories and write brief descriptions about each category.[B]

TS 7:45 Display items constructed by using the following types of threads: basting, button, darning cotton, elastic, embroidery floss, general purpose, metallic, quilting, and buttonhole twist. Lead a class discussion about the different kinds of thread available to consumers.

TS 7:46 Have students to select three of the thread types listed in Table 7.2 in the *Apparel and Textiles Production, Management, and Services Reference Book*. Direct students to write descriptions on how they would use the different types of thread and on what type of garments the thread would be used.

TS 7:47 Lead a class discussion about the variety of straight pins available for consumer purchase. Have students practice inserting straight pins in fabric swatches. Instruct students to write summary paragraphs on the use and variety of straight pins.[B]

TS 7:48 Display articles of clothing or pictures of items that may have been constructed by using the needles listed in Table 7.2 of the *Apparel and Textiles Production, Management, and Services Reference Book*. Lead a class discussion about the similarities in and differences between these items. KEY QUESTIONS: Why do needles vary in uses? in size?

TS 7:49 Give students Teaching Aid 55, What Thread and Needle Should Be Used? Lead a class discussion regarding students' answers to the teaching aid. KEY QUESTION: Why do thread and needle types vary?[B]

TS 7:50 Plan an inductive approach to learning how different fasteners are used on garments. Clues for identifying a frog fastener might include the following: sizes range from 2 3/4" to 4", used as a decorative closing, made of braid, and used with a Chinese ball button. KEY QUESTIONS: When should a separating zipper be recommended? What are the advantages of shank and sew-through buttons? disadvantages? Where are snaps commonly applied to garments? Where are hooks and eyes commonly applied to garments? What are the advantages of using loop and pile fasteners? disadvantages?[B]

TS 7:51 Instruct students to create a visual display that describes tapes used in garment construction. Have students look through several magazines to find pictures of garments to match with the tapes. Have students creatively arrange the pictures and tapes for a display. Ask students to write brief descriptions about why each tape would be used with each identified garment. Share the displays with class members.[B]

TS 7 :52 Divide the class into cooperative learning groups and divide the names of the trims, identified in Table 7.2 of the *Apparel and Textiles Production, Management, and Services Reference Book* evenly among students. Instruct each group to prepare inductive learning clues for the trims. Have students practice identifying trims using the inductive approach to learning.[B]

TS 7:53 Show students shaping aids identified in Table 7.2 of the *Apparel and Textiles Production, Management, and Services Reference Book.* Lead a class discussion about each of the shaping aids and how they add to the appearance of garments. KEY QUESTIONS: Why are shaping aids important to the finished appearance of a garment? Should shaping aids be added if pattern instructions do not require them? Why?

TS 7:54 Lead a class discussion about elastics. Emphasize the variety of ways elastics may be used in garment construction. Show students samples of woven elastics and braided elastics. KEY QUESTIONS: When are woven elastics used? When are braided elastics used? How are woven and braided elastics different?

TS 7 :55 Guide students in planning an FHA/HERO project that allows use of fusibles to create decorative T-shirts. Have chapter members use the T-shirts to enhance a project theme.[B][C]

8

Elements and Principles of Design

ESSENTIAL ELEMENT

- Apply design elements when designing, constructing, or altering apparel.(q3B and q6A)

OBJECTIVES TO ACHIEVE

- Suggest ways the elements of design may be used to design, construct, or alter apparel.

- Analyze the use of the principles of design in apparel design, construction, and alteration.

ASSIGNMENT

- Read Chapter Eight in the *Apparel and Textiles Production, Management, and Services Reference Book.*

TS 8:1* Write or project the word *design* on a board or screen. Lead a class discussion to help students define *design.* Emphasize that design appears in various surroundings in everyday life. KEY QUESTIONS: Why does poor design cause people to have negative reactions? How can a person create good design? How does design affect one's life?

TS 8:2 Instruct students to look through magazines to find design pictures that describe their personalities. Pictures may include homes, apparel, and furnishings. Have students arrange the pictures to make a collage and describe, in writing, the pictures and how they relate to personality. Ask each student to share his or her collage in class.[B]

TS 8:3 Lead a class discussion to define *elements of design.* Show students illustrations that represent line, shape/form, space, texture, and color. Have students use computer software to practice the application of design elements. KEY QUESTIONS: Why is it important to use the elements of design when describing fabrics and fashions to customers? developing fashion displays? planning promotional events?

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* TS 8:1 indicates teaching strategy, chapter 8, number 1.
[B] = Basic Skill Reinforcement
[C] = Common Essential Element

ELEMENTS OF DESIGN

TS 8:4 Lead a class discussion about designers remaining flexible, in creativity, when using the elements of design. KEY QUESTIONS: Why do fashion designers integrate elements of design into their work? How do the elements of design help in apparel construction? CRITICAL QUESTION: What is the relationship between the elements of design and success in fashion design?

TS 8:5 Display Teaching Aid 56, Elements of Design. Allow students to use newspapers, magazines, and other periodicals to find examples of elements of design. Ask students to share the examples with the class.[B][C]

Line

TS 8:6 Have students read from several references to define *line*. Lead a class discussion to emphasize that line is found in the construction lines of a garment as well as in the design of the fabric used to construct a garment. KEY QUESTIONS: How can construction lines affect the design of a garment? How do lines define shape? limit shape?[B]

TS 8:7 Instruct students to find pictures of clothing in which line is the predominant element of design. Display the pictures and lead a class discussion regarding how lines are used to create illusions of height, formality, thinness, and softness. KEY QUESTIONS: What types of line create an illusion of height? formality? thinness? softness?

TS 8:8 Ask students to volunteer to have the lines in their clothing identified by class members. Ask students to make suggestions on the use of line. KEY QUESTIONS: Are the lines in the clothing complimentary to the person? Why? What illusions are created by the lines in the clothing?[C]

TS 8:9 Instruct students to develop picture booklets describing different types of lines. Students should include vertical, horizontal, diagonal, curved, structural, and decorative lines. Have students look through magazines and commercial pattern books to find pictures that represent each type of line. Ask each student to share his or her booklet with the class.[B]

TS 8:10 Have students define *structural lines* and *decorative lines* as they relate to apparel. Instruct students to use structural and decorative lines in drawing designs that create illusions of height and width. KEY QUESTIONS: What is the purpose of a structural line? a decorative line? What lines create positive illusions for tall people? for short people? for thin people? CRITICAL QUESTION: Why do lines create optical illusions?

TS 8:11 Display Teaching Aid 57, Guidelines for Selecting Clothing. Lead a class discussion about lines in clothing and how they compliment a customer's figure. KEY QUESTIONS: Why do vertical lines slim the figure? What type of line would be attractive on a tall, heavy person? What is the difference between a T-line and a Y-line?

TS 8:12 Divide the class into pairs. Instruct each pair to find pictures of garments that represent each line illustrated in figure 8.3 in the *Apparel and Textiles Production, Management, and Services Reference Book*. Ask students to creatively display and describe the pictures in class.[B]

TS 8:13 Prepare a series of illustrations that describe different lines found in clothing. Use the illustrations to help students identify structural and decorative lines. KEY QUESTIONS: How do lines emphasize figure assets and minimize figure faults? How does the placement of lines affect the divisions of a garment? What illusions are created by lines?

TS 8:14 Invite a resource person to speak to the class about optical illusions created by lines in clothing. Have the speaker bring examples of clothing that create optical illusions. Ask the speaker to emphasize the difference between structural and decorative lines. Guide students in preparing written questions prior to the speaker's presentation.[B]

Shape/Form

TS 8:15 Lead a class discussion about the importance of shape and form in apparel. Emphasize that squares and rectangles produce a feeling of mathematical precision while circles and ovals convey a feeling of completeness. KEY QUESTIONS: How can form give an impression of lightness or heaviness? Is diversity in apparel acceptable? Why?

TS 8:16 Write or project the term *shape/form* on a board or screen. Lead a class discussion about the relationship of shape and form to silhouette. KEY QUESTION: Why is the silhouette often considered the most important design line in clothing?

TS 8:17 Have students define *bell silhouette*, *back fullness silhouette*, and *tubular silhouette*. Lead a class discussion about how these classic silhouettes have appeared in fashion throughout the years. Have each student list variations of the classic silhouettes that are present in his or her wardrobe. Have volunteers describe the silhouettes found in the clothes they are wearing.

TS 8:18 Instruct students to look through magazines for examples or draw illustrations of the three classic silhouettes. Students should include examples for both males and females. Lead a class discussion about the effect of silhouettes on personal appearance. Have students determine which silhouettes are currently the most popular. KEY QUESTIONS: Do tubular silhouettes make a person look taller and longer? Why? Do bell silhouettes make a person look slimmer? Why? What body type does the back fullness silhouette compliment? the tubular silhouette? the bell silhouette? Why can some people wear some silhouettes and not others?[B]

TS 8:19 Demonstrate how the silhouette of a garment can emphasize or camouflage physical characteristics. Have each student write a paper describing the personal features he or she would like to emphasize or camouflage. Have students choose appropriate pictures or sketch designs of apparel from newspapers, magazines, or commercial pattern books that would appropriately emphasize or camouflage features described in the papers.[B]

Space

TS 8:20 Write or project the term *space* on a board or screen. Ask students to write definitions that incorporate the idea of space, form, and shape. Lead a class discussion to explain that in visual design, space is the background against which forms or shapes are seen. Show students fabric samples and/or garments made of textiles in which a figure or form appears on a background. KEY QUESTIONS: How can space provide relief from patterns in the design of a fabric? Is spacing the same on all of the example fabrics? Why does spacing differ? How do different sizes of patterns and spaces on a garment affect the appearance of the person wearing the garment? How can space be used to emphasize or camouflage physical characteristics?[B]

Texture

TS 8:21 Have students define *texture*. Lead a class discussion about the design element, texture. Point out that every fabric has its own texture whether it is rough, smooth, shiny, soft, or harsh. KEY QUESTIONS: How can texture affect a person's appearance? What is the relationship between apparel textures and seasonal weather? What textures are appropriate for spring? summer? fall? winter? What fabrics can a person look at and see texture? How can texture change a person's appearance?

TS 8:22 Collect fabrics of various textures. Distribute the fabrics among students and have them describe (with single words) each fabric's texture. Ask students to suggest uses for the fabrics based on the textures. KEY QUESTIONS: How does fabric texture affect the way a fabric is used? Do textured fabrics require special care? Why? How does fabric texture affect a garment's appearance?[B]

TS 8:23 Instruct each student to list the textures in his or her wardrobe. Have students group the textures in the following categories: smooth, fuzzy, shiny, rough, and dull. KEY QUESTIONS: What textures were found most frequently in the wardrobes? Why? Do most people purchase a variety of textures? Why?

TS 8:24 Instruct students to describe the fabric textures they are wearing. Have volunteers write or project words describing the textures on a board or screen. Lead a class discussion about garment texture. KEY QUESTIONS: Which fabric textures are most appropriate for garments worn to a football game? a formal dance? a picnic? work? Why?[B]

TS 8:25 Divide the class into cooperative learning groups. Have students drape fabrics of various textures over the body to determine how texture affects the silhouette. Have students view themselves in a full-length mirror. KEY QUESTIONS: Which textures are the most appropriate for different figure types? the least appropriate? What textures are worn because they are currently in fashion? How important is it to wear fabrics that are currently in fashion?

TS 8:26 Invite a resource person from the retail community to speak to the class about the importance of retail salespeople having knowledge of and understanding textures. Ask the speaker to emphasize reasons why customers prefer knowledgeable salespeople. Guide students in preparing questions prior to the speaker's presentation.[B]

Color

TS 8:27 Ask students to close their eyes. Have students open their eyes and list all of the colors they see directly in front of them. Lead a class discussion to help students define *color*. Point out that a person with normal vision can discriminate at least 2,000 colors. KEY QUESTIONS: Why is it possible to see a large number of different colors? Why do some people buy clothing of colors that do not enhance their appearances?

TS 8:28 Instruct students to read from several resources to develop an understanding of color and its relationship to other elements of design. Have each student draw conclusions from the research and write a paper about the influence of color in apparel and textiles. Ask volunteers to share their papers with the class. Evaluate papers for creativity, content, and clarity.[B][C]

TS 8:29 Distribute different colors of paint to the class. Instruct students to paint squares of equal size on white paper. Lead a class discussion regarding the effects color has on an object's perceived size, height, and weight. KEY QUESTIONS: What color are the squares that appear to be the biggest? the tallest? the heaviest? Why? How can the information about illusion help in wardrobe planning? in apparel design?

TS 8:30 Have FHA/HERO chapter members work with preschoolers in identifying colors. Instruct chapter members to create flannel boards or visual displays to use in illustrating appropriate clothing to wear to school. Have students stress the importance of wearing proper clothing during seasonal times of the year. Ask students to write brief summaries discussing what each child learned. Have students share the summaries with parents. Students may also assist senior citizens with color analysis and wardrobe planning.[B][C]

TS 8:31 Instruct students to bring to class several basic tops, shirts, and blouses in a variety of colors. Display the blouses, shirts, and tops in the classroom and have each student describe in writing how different colors of the same apparel item can create changes in mood, purpose, and appeal. KEY QUESTIONS: Which colors appear to be warm and friendly? Which colors appear to be professional? Which colors project a youthful image?[B]

TS 8:32 Lead a class discussion about color and the reasons why it is the most important element in apparel design. KEY QUESTIONS: How does color affect people's moods? Why is it important for people to understand how color changes moods? affects personality? What does the fashion designer want to accomplish when selecting color for his or her designs? Why?

TS 8:33 Invite a color specialist to speak to the class about how personal colors are analyzed. Guide students in preparing written questions prior to the speaker's presentation. KEY QUESTIONS: How does color enhance a person's overall appearance? When does color detract from overall personal appearance?[B]

TS 8:34 Instruct students to read from several references and define the following terms related to color: *color wheel, primary colors, secondary colors, tertiary colors,* *intermediate colors*, *quaternary colors*, *hue*, *value*, *tint*, *shade*, *tone*, and *intensity*. Ask students to record the definitions and prepare to discuss them with the class.[B]

TS 8:35 Give students copies of Teaching Aid 58, Create a Color Wheel. Instruct students to create color wheels. Lead a class discussion about the importance of using a color wheel in apparel design. Emphasize that designers have a color plan when creating a design. KEY QUESTIONS: Why is a color wheel helpful in apparel design? Why is it important to have a color plan in fashion design? How does understanding the color wheel benefit a person employed in the textiles and apparel industries?

TS 8:36 Collect four or five examples containing primary colors, secondary colors, tertiary colors, and quaternary colors from magazines. Ask students to participate in an inductive lesson to become better acquainted with the color wheel.

TS 8:37 Ask students to write definitions of *hue* on pieces of paper. Lead a class discussion about hue. Emphasize that even though hue refers to the specific name of a color, it does not imply color purity. Lead students to brainstorm to list a variety of names for *blue*. Students may also use computer software on color to understand hue. KEY QUESTIONS: Why do the names of colors change? Why are new colors introduced each year by the fashion industry? How do consumers learn about the new colors being introduced?[B]

TS 8:38 Have each student select one basic hue from the color wheel. Provide paints, brushes, small containers for paint, and mixing tools. Direct students to follow instructions on Teaching Aid 59, Create a Value Chart, to create various tints, shades, and tones of the selected hues. KEY QUESTIONS: What are the differences between tints and shades? How are tones created? How does understanding value help in wardrobe planning and in fashion design?[B]

TS 8:39 Ask students to look through magazines and pattern books to find examples of clothing that help define *intensity*. Instruct students to creatively display the pictures to describe the brightness, dullness, strength, or weakness of color. Have each student write a paragraph under the pictures that describes his or her interpretation of intensity.[B]

TS 8:40 Lead a class discussion about selecting two or more colors to wear together to create harmony. Point out that when harmony occurs in apparel selection, a color scheme has been used. Ask each student to try to determine what color scheme is used in his or her clothing choice. KEY QUESTIONS: Why is it important to understand color schemes? In general, what color schemes tend to be more popular in apparel fashion? In general, what color schemes appear to remain unpopular?

TS 8:41 Instruct students to read from several references and define the following terms related to color schemes: *monochromatic*, *analogous*, *complementary*, *split complementary*, *double complementary*, *triad*, and *accented neutral*. Ask students to record the definitions and be prepared to discuss them with the class.[B]

TS 8:42 Direct each student to select one basic hue from the color wheel. Have students follow the instructions on Teaching Aid 60, Create Color Schemes, to create the five basic color schemes identified. Provide colored pencils, markers, paints, and other supplies as needed to complete the teaching aid. Ask each student to write a brief description of how each color scheme would be used in his or her wardrobe. Have students share their descriptions with the class.[B]

TS 8:43 Collect several examples of clothing to use in a lesson about color schemes. Have students use the examples to practice creating color schemes. Lead a class discussion about successfully creating color schemes in a person's wardrobe.[B]

TS 8:44 Instruct each student to create fashion designs using three of the following color schemes: monochromatic, analogous, complementary, split complementary, double complementary, triad, and accented neutral. Students may create fashion designs using freehand sketches and tracings. Ask each student to write a paper describing each of the designs. Have students include in the papers descriptions of how the other elements of design were incorporated into the designs. Display student designs in the classroom.[B]

TS 8:45 Display Teaching Aid 61, Psychological Effects of Color. Have each student record the colors associated with the words listed on the teaching aid. Lead a class discussion about the psychological effects color has on people. KEY QUESTION: Why does color have a psychological effect on people?[B]

TS 8:46 Lead a class discussion to define *warm colors* and *cool colors*. Show examples of warm and cool colors and ask students to determine which colors appear to be youthful and which colors appear to be best suited for more mature people. KEY QUESTIONS: Why do warm colors give a feeling of youth and spirit? Why do cool colors portray somber feelings?

TS 8:47 Show a visual aid outlining ways people can choose colors that will enhance their natural coloring. Use color collars to demonstrate the methods recommended. Separate the collars into warm colors and cool colors. Help students determine if they have yellow/tan or blue skin tones. Allow students to work individually or in pairs to determine their best colors. KEY QUESTIONS: How does skin tone affect the colors that look good on a person? What colors should be avoided by persons with yellow/tan skin tones? blue skin tones? Why? What colors are most complimentary on persons with yellow/tan skin tones? blue skin tones? Why?

TS 8:48 Write or project the term *primary neutral* on a board or screen. Instruct each student to write a definition. Lead a class discussion about the use of primary neutrals in fashion design and wardrobe planning. KEY QUESTIONS: Why do grays or medium hues tend to leave a person unnoticed? Why is black a dominant neutral? Can most people wear neutrals? Why?[B]

PRINCIPLES OF DESIGN

TS 8:49 Lead a class discussion to help students define *principles of design*. Emphasize that in good design, it is almost impossible to separate the elements and principles because they work together to create a total effect. KEY QUESTIONS: Why is an understanding of the principles of design essential in apparel design? What are some benefits of understanding principles of design?

TS 8:50 Instruct students to read from several references to identify the principles of design. Have students name, define, and discuss each principle. Ask each student to select one example of each principle of design, such as balance, proportion, rhythm, emphasis, or harmony, to promote class discussion.[B]

Balance

TS 8:51 Instruct students to read from several references and define the following terms related to balance: *balance*, *formal balance* or *symmetrical balance*, and *informal balance* or *asymmetrical balance*. Ask students to record the definitions and be prepared to discuss them with the class.[B]

TS 8:52 Display Teaching Aid 62, Principles of Design: Balance. Lead a class discussion on achieving symmetrical and asymmetrical balance in apparel design. Instruct students to find illustrations of symmetrical and asymmetrical balance in magazines. KEY QUESTIONS: Which type of balance is most interesting? Why? Which type of balance is most formal? Why?

Proportion

TS 8:53 Write or project the terms *proportion* and *scale* on a board or screen. Ask students to write definitions for each of the terms. Show students Teaching Aid 63, Principles of Design: Proportion. Have examples of clothing and accessories available to demonstrate how proportion is determined. Emphasize that all space divisions should be pleasingly related to each other.[B]

TS 8:54 Ask volunteers to demonstrate how jacket lengths and skirt/pant lengths look better when they are in proportion to an individual's figure. Female volunteers should be over 5'7" and under 5'2", and male volunteers should be over 6' and under 5'6". KEY QUESTIONS: When fashion dictates a certain style, how can it be adapted to complement different figure types? How can people dress fashionably and still keep the clothing in proportion to their shapes?

Rhythm

TS 8:55 Display Teaching Aid 64, Principles of Design: Rhythm. Instruct students to read from several references and define the following terms related to rhythm: *rhythm*, *repetition*, and *gradation* or *progression*. Ask students to record the definitions and be prepared to discuss them with the class.[B]

TS 8:56 Divide the class into cooperative learning groups. Have each group prepare an illustration that describes rhythm in clothing. Instruct students to label each illustration and describe its contribution to principles of design. KEY QUESTIONS: Why is rhythm an important principle of design? Why is interrupting rhythm upsetting to the eye? CRITICAL QUESTIONS: What is the relationship between rhythm and line? color? texture? space? shape or form?[B]

Emphasis

TS 8:57 Show students Teaching Aid 65, Principles of Design: Emphasis. Lead a class discussion to assist students in defining emphasis. Ask students to describe in written paragraphs the clothing they are wearing. Have students specifically state how emphasis is created in their clothing. Ask each student to share his or her paragraph with the class. KEY QUESTIONS: How can emphasis be created in apparel designs? Why is emphasis an important principle of design?[B]

TS 8:58 Invite a fashion consultant to speak to the class and to demonstrate how accessories are used to enhance appearance. Have students bring accessories to class. Ask the consultant to show students how to properly use the accessories. Instruct each student to be prepared to demonstrate use of an accessory during the next class. Guide students in preparing written questions prior to the speaker's presentation.[B]

TS 8:59 Ask students to look through magazines and commercial pattern books to find examples of clothing in which accessories are used as a form of emphasis. Instruct students to write papers summarizing how accessories complete an outfit. Evaluate papers for creativity, content, and clarity.[B]

Harmony/Unity

TS 8:60 Display Teaching Aid 66, Principles of Design: Harmony/Unity. Lead a class discussion to define *harmony/unity*. Emphasize that the garment and the body must appear to be well-suited to each other. CRITICAL QUESTION: What is the relationship between harmony and the elements and principles of design?

TS 8:61 Ask each student to bring harmonious apparel combinations from his or her wardrobe to class. Use a variety of accessories to demonstrate how accessories can create harmony. Instruct students to analyze each apparel combination and lead a class discussion during which areas needing improvement are identified.[B][C]

9

Sewing, Repairing, and Pressing Techniques

ESSENTIAL ELEMENTS

- Apply appropriate sewing and pressing techniques in garment construction.(q3C)
- Demonstrate appropriate garment repair techniques.(q5C & q9C)
- Demonstrate sewing, repairing, or pressing techniques.(q8C)

OBJECTIVES TO ACHIEVE

- Explain how the principles of managing time, energy, motions, and work can be applied to sewing, repairing, and pressing tasks.
- Describe the major steps involved in the sewing process.
- Apply sewing techniques including basic stitching methods; methods for sewing corners, curves, points, and inserts; and methods for producing darts, pleats, tucks, and buttonholes.
- Identify methods for producing various types of seams and seam finishes.
- Apply various hand stitching techniques.
- Demonstrate various garment repair techniques.
- Demonstrate various pressing techniques used in the construction and care of apparel.

ASSIGNMENT

- Read Chapter Nine in the *Apparel and Textiles Production, Management, and Services Reference Book.*

TS 9:1* Instruct students to read from several sources about the benefits of managing time, work, and energy. Have each student summarize his or her findings in a brief report. Ask several students to share their results with the class. Lead a class discussion about the positive outcomes of good management skills in apparel and textiles related careers. KEY QUESTIONS: Why are good management skills important? How can people improve management skills?[B]

WORK MANAGEMENT AND MOTION ECONOMY

TS 9:2 Write or project the term *motion economy* on a board or screen. Divide the class into cooperative learning groups. Instruct each group to define *motion economy* and determine ways time can be saved when employed in the apparel and textiles industries. Have an elected group leader share results with the class.[B][C]

TS 9:3 Present an illustrated lecture that describes the basic principles of motion economy. Have each student demonstrate two of the basic principles of motion economy. Evaluate students on the effective use of time-saving techniques. KEY QUESTIONS: What are benefits of using time management techniques in sewing, repairing, and pressing jobs? Why are motion economy principles encouraged by business management? How difficult is it to learn motion economy principles?

TS 9:4 Invite a resource person from apparel manufacturing to speak to the class about integration of motion economy principles. Ask the speaker to emphasize good work habits, reliability, and efficiency on the job. Guide students in preparing written questions prior to the speaker's presentation.[B]

TS 9:5 Present a demonstration on selected sewing equipment and tools that help sewers save time and energy as a result of high-technology advancements. Allow students to experiment with available equipment and tools. Show available audiovisuals depicting high-technology equipment used in various parts of the apparel and textiles industries such as computerized systems used in the design and manufacture of apparel. KEY QUESTIONS: How have technological advancements affected employees in the apparel and textiles industries? How has high-technology equipment influenced the quality of items produced in the apparel and textiles industries? How has high-technology equipment affected the speed with which items are produced in the apparel and textiles industries? CRITICAL QUESTION: How does high-technology equipment influence the cost of items produced by the apparel and textiles industries?

THE SEWING PROCESS

TS 9:6 Instruct students to read from several references and define the following terms related to the sewing process: *garment construction, garment repair, fit, fitted*

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* TS 9:1 indicates teaching strategy, chapter 9, number 1.
[B] = Basic Skill Reinforcement
[C] = Common Essential Element

garments, *draped garments*, *tailored garments*, and *composite garments*. Ask students to record the definitions and be prepared to discuss them with the class.[B]

TS 9:7 Divide the class into cooperative learning groups. Have each group look through magazines and commercial pattern books to find pictures of fitted, draped, tailored, and composite garments. Instruct each group to creatively arrange the pictures in a visual display with appropriate labels. Allow each student to share garment illustrations with the class.

TS 9:8 Display various types of fitted, draped, tailored, and composite garments. Have students identify each garment in terms of these categories related to fit. KEY QUESTIONS: Which of these types of garments would be most appropriate for a tall, heavy person? Which of these types of garments would be most appropriate for a medium-height, slender person? Why is fit an important component when selecting garments? CRITICAL QUESTIONS: Is fit or a current fashion trend a more important consideration when selecting a garment? Why?

Machine Control

TS 9:9 Provide students with a definition of *machine control*. Explain that by using a desired sewing speed, a sewer can feed materials through a sewing machine evenly and can use the machine to accomplish tasks for which it is designed. KEY QUESTIONS: Why is it important to keep the machine at a moderate speed? What problems could occur when uneven and fast speeds are used?

TS 9:10 Demonstrate starting, stopping, and continuous sewing with the sewing machine. Point out controls and the placement of the needle for certain types of sewing. Emphasize the importance of safety in sewing machine operation. Assign students a sewing machine and direct them to practice starting, stopping, and sewing a continuous, straight line using remnant fabric and no thread.[B]

Threading

TS 9:11 Lead students to brainstorm to identify complications that might occur in sewing if the machine is not threaded correctly. Demonstrate the correct procedures for threading laboratory sewing machines. Point out the purpose of each of the thread guides on the machines. Ask each student to practice threading a machine. KEY QUESTIONS: Why is it important to thread the sewing machine correctly? What is the purpose of the thread guide closest to the spool(s) of thread?

TS 9:12 Demonstrate the correct placement of sewing machine needles in the classroom or laboratory sewing machines. Explain complications that may occur if sewing machine needles are not inserted correctly. KEY QUESTIONS: Why is it important to have the sewing machine threaded correctly and the needle inserted properly? Is it possible to sew accurately if the sewing machine is threaded correctly but the needle is not inserted properly? Why?

TS 9:13 Develop transparencies using instruction books for the sewing machines in the sewing laboratory. Have students identify the correct methods for threading the machines. Instruct students to read use-and-care manuals for the sewing machines and make a list of tips for successful sewing.[B]

Stitching

TS 9:14 Provide students with definitions of *stitch* and *seam*. Point out that Federal Standard 751a defines and classifies seams, stitches, and stitching. Emphasize that machine stitching is done for both functional and decorative purposes.

TS 9:15 Instruct students to read from several references about the variety of stitches that can be performed on sewing machines. Have students summarize the researched information in written reports. Ask student volunteers to share their research with the class.[B]

TS 9:16 Identify various types of stitches the laboratory sewing machines are designed to produce. Have each student prepare stitch samples and indicate how each stitch would be used in apparel construction. Display the samples in the classroom. Lead a class discussion about how decisions are made in apparel manufacturing regarding stitch selection. KEY QUESTIONS: What factors influence the selection of stitches in apparel manufacturing? What might influence a change in stitch selection?

TS 9:17 Display Teaching Aid 67, Eight Classes of Stitches. Lead a class discussion about how classification of stitches is determined in apparel manufacturing. Point out that industrial machines are usually designed to produce one particular stitch while conventional machines are designed to produce a variety of stitches. KEY QUESTIONS: What are the advantages of industrial machines producing one specific stitch? disadvantages? What is the purpose of classifying stitches in apparel manufacturing? Why are conventional machines designed to produce a variety of stitches? What stitches can be produced by the machines in the apparel laboratory?

TS 9:18 Demonstrate use of the stitch regulator. Emphasize that the stitch regulator is used as a starting point in determining stitch length. Instruct students to practice using the regulator by preparing a variety of samples.

Guiding, Aligning, and Repositioning Work

TS 9:19 Demonstrate the importance of skill in guiding, aligning, and repositioning work during apparel construction when stitching through several layers of fabric, stitching complex curves, and sewing continuous seams. Point out the advantages and disadvantages of trimming attachments on industrial sewing machines. KEY QUESTIONS: Why would stitching through several layers of fabric influence alignment? Why would sewing curves require the machine operator to stop and realign the fabric? CRITICAL QUESTION: How do trimming attachments increase productivity?

TS 9:20 Lead students to brainstorm for reasons stops may be required while sewing. KEY QUESTION: Why might a machine operator stop during sewing construction?

Releasing Work

TS 9:21 Present a demonstration that shows how to release work from the sewing machine. Emphasize that the most efficient way for sewing machine operators to release work is to sew it out in a continuous chain. Instruct students to practice releasing fabric by using remnant fabrics.

TS 9:22 Lead a class discussion about finishing work. Point out that some manufacturing businesses hire employees to perform specific tasks such as trimming and clipping. KEY QUESTIONS: Why would it be time efficient to hire other individuals besides sewing machine operators for trimming and clipping tasks? What are the disadvantages of hiring employees to perform specific tasks?

BASIC SEWING TECHNIQUES

NOTE: Computer software may be obtained that allows students to practice basic sewing techniques using a computer. Such software programs may be used to supplement teaching strategies described in this section or instead of teaching strategies that require laboratory equipment not available in some school settings.

TS 9:23 Instruct students to practice basic sewing skills including the following: positioning work, following straight and curved lines, turning corners, starting and finishing seams, and back tacking or backstitching. Ask students to prepare samples of each technique to be placed in a sample notebook. Have each student write a paper describing the skill level at which he or she is presently performing and identifying additional skills desired.[B]

TS 9:24 Display Teaching Aid 68, The Perfect Seam. Lead a class discussion about the characteristics of a perfect seam. KEY QUESTIONS: How important is it to correct imperfect seams? Why? What main factor contributes to a perfect seam?

TS 9:25 Present a demonstration about the construction of a perfect seam. Have remnant fabric available for students to practice constructing seams after they view the demonstration. KEY QUESTION: Why is it important to develop excellence in constructing seams before beginning a sewing project or becoming an apparel manufacturing employee?

TS 9:26 Write or project the term *seam guide* on a board or screen. Instruct students to read from several sources about techniques used to sew seams the desired widths and equipment that can be installed on machines to serve as seam guides. Have students share findings with the class. KEY QUESTIONS: Why is it important to use seam guides? What methods are most effective? Why?[B]

TS 9:27 Lead a class discussion to assist students in defining *edgestitching*. Demonstrate methods for effective edgestitching. Point out that edgestitching requires concentration because stitches are close to the fabric edge. Instruct students to practice edgestitching on seam samples previously constructed. Have each student prepare a sample to be placed in a sample notebook.[B]

Backstitching

TS 9:28 Lead a class discussion to define *backstitching* or *back tacking*. Demonstrate the correct procedure for backstitching. Point out that backstitching is not used on every seam. KEY QUESTIONS: Why is backstitching eliminated from some seams? When is it most important to backstitch seams?

TS 9:29 Instruct students to practice backstitching on the seam samples previously constructed in class. Ask each student to prepare a sample to be placed in a sample notebook.

Staystitching

TS 9:30 Display Teaching Aid 69b, Staystitching, and explain the technique of directional stitching. Write or project the term *staystitching* on a board or screen and have students define the term. Display samples of fabrics that have been staystitched. Provide each student with a copy of Teaching Aid 69a, Staystitching, and have students draw arrows on the garment illustrations to indicate the appropriate directions for staystitching each item. KEY QUESTIONS: Is staystitching done through a single layer of fabric or through several layers? How close to the raw edge should staystitching be placed? Why? Why is staystitching important? What areas of garments should be staystitched? What are the characteristics of fabrics that should be staystitched? fabrics that do not require staystitching?

TS 9:31 Present a demonstration on the correct method of staystitching. Instruct each student to prepare his or her cut garment sections for staystitching. Have students identify where staystitching will be used in the construction of projects.

Basting

TS 9:32 Using a flip chart, provide students with a definition of basting and machine basting. Demonstrate the correct procedures for both types of basting. Instruct students to prepare samples of each type of basting for a sample notebook. Ask students to indicate when each type of basting is used.

TS 9:33 Have students prepare two seam samples. One seam sample should be machine basted and the other seam sample should be machine stitched at a length of eight to ten stitches per inch. Instruct students to use a seam ripper to take each seam apart. Ask students to summarize the reason for machine basting seams. KEY QUESTIONS: Which seam was easier to take apart? Why? When are basting stitches used? What are the advantages of using basting stitches? disadvantages?

Understitching

TS 9:34 Instruct students to read from several references to define *understitching* and *grading*. Ask student volunteers to prepare a visual display about grading and understitching a seam allowance. Have students emphasize the purposes of grading and understitching seams and to identify areas on clothing that most commonly require grading and understitching. KEY QUESTIONS: Why is grading important when constructing apparel and other textile products? Why is understitching important to the quality of the final product? What purpose does grading serve that cannot be accomplished by pressing?

Topstitching

TS 9:35 Ask each student to write definitions for *topstitching* and *finish stitching* or *surface stitching*. Lead a class discussion on why some garments require topstitching. KEY QUESTIONS: What types of garments require topstitching? On what areas of garments is topstitching commonly used? Why?

TS 9:36 Divide the class into cooperative learning groups. Have each group look through magazines and commercial pattern books to find examples of garments that require topstitching. Instruct students to display the pictures with a summary statement about why each item requires topstitching. Have elected group leaders share displays with the class.[B][C]

Sewing Corners, Points, and Inserts

TS 9:37 Display Teaching Aid 70, Corners, Points, and Inserts, to assist students in defining *corner*, *pivoting*, *point*, and *insert*. Present a demonstration on correct procedures for sewing corners, points, and inserts. KEY QUESTIONS: What is the difference between a corner and a point? Why is pivoting important in achieving a well-sewn corner?

TS 9:38 Instruct students to practice making corners, pivoting, constructing points, and sewing inserts by using remnant fabrics. Have each student place an example of each technique in a sample notebook.

Darts

TS 9:39 Instruct students to read from several references and to define the following terms related to constructing darts: *dart*, *standard dart* or *single-pointed dart*, and *double-pointed dart* or *contour dart*. Ask students to record the definitions and be prepared to discuss them with the class.[B]

TS 9:40 Lead students to brainstorm to identify why darts are used in constructing apparel. KEY QUESTIONS: What are the benefits of darts? Are darts found more frequently in men's or women's clothing? Why are some darts clipped, slashed, or trimmed before pressing? CRITICAL QUESTION: How do dart placements and dart shapes change with changes in the fashion cycle?[B]

TS 9:41 Give each student copies of Teaching Aid 71, Single-Pointed Darts, and Teaching Aid 72, Double-Pointed Darts. Instruct students to use the diagrams and suggestions for constructing single-pointed and double-pointed dart samples. Have each student prepare a sample of each dart for a sample notebook. KEY QUESTIONS: When are single-pointed darts most commonly used in apparel construction? When are double-pointed darts most commonly used in apparel construction?

Pleats and Tucks

TS 9:42 Present an illustrated lecture that assists students to define *pleats* and *tucks*. Instruct students to find examples in magazines and commercial pattern books or in their own wardrobes of different types of pleats and tucks. Have students label the pleats and/or tucks as box pleats, side or knife pleats, or inverted pleats.

TS 9:43 Demonstrate correct procedures for constructing pleats and tucks. Emphasize the correct methods of pressing. Instruct students to prepare pressed samples of a box pleat, side or knife pleats, and an inverted pleat. Have each student place an example of each pleat in a sample notebook.[B]

Buttonholes

TS 9 :44 Present an illustrated lecture showing buttonholes made by the hand and machine methods. Ask students to briefly describe in paragraphs when each method of buttonhole construction would be used.[B]

BASIC SEAMS AND SEAM FINISHES

NOTE: The teacher may present all or a portion of the basic seam types and seam finish types covered in this section depending on the local situation, class assignments, and needs of students. A variety of seams and seam finishes are discussed in order to provide comprehensive information from which the teacher may choose.

TS 9:45 Display a transparency of Teaching Aid 73, Straight Seam, and identify the steps in constructing a plain seam. Demonstrate techniques including trimming, grading, clipping, and notching. Have students review Teaching Aid 74, Techniques Used in Seam Construction. Direct students in constructing samples of plain seams following the procedures covered in class. Samples should involve students in trimming, grading, clipping, and notching seams. Display completed samples in the classroom.

TS 9:46 As an introductory learning experience, distribute samples of fabrics that require special seams and identify the types of seams and seam finishes appropriate for each fabric. Allow student volunteers to create a visual display with the fabric samples, identifying seams and seam finishes appropriate for each.

TS 9:47 Invite a tailor, dressmaker, or other informed resource person to speak to the class about seams and seam finishes. Ask the speaker to stress why customers look for seam finishes in high quality garments. Guide students in preparing written questions prior to the speaker's presentation. KEY QUESTION: What is the relationship between high quality garments and seam finishes?[B]

TS 9:48 Draw or project an illustration of a curved seam and a straight seam on a board or screen. Ask students to identify steps to follow when sewing each of the seams. Instruct students to practice constructing curved seams and place samples in their sample notebooks.

TS 9:49 Write or project the terms *gathered seam* and *eased seam* on a board or screen. Ask students to review several sources to determine definitions. Provide samples of each seam for students to observe.

TS 9:50 Lead a class discussion to help students define *seam finishes*. Emphasize why seam finishes extend the life of a garment and add a professional appearance. Divide the class into cooperative learning groups. Have each group review magazines and commercial pattern books to find pictures of garments that might require special seam finishes. Instruct students to create a visual display of the pictures and label the type(s) of appropriate finish(es) along with a reason for each choice. KEY QUESTIONS: What fabrics are best suited for different types of seam finishes? What are the advantages of using seam finishes? CRITICAL QUESTION: How does fabric selection influence the types of seam finishes used?[B]

TS 9 :51 Instruct students to bring articles of clothing to show a variety of seam finishes. Display the clothing items so that all students may review them. Ask students to briefly describe why there are differences in the types of seam finishes used. Have several students share their responses with the class. KEY QUESTIONS: When should a seam finish be applied to a garment seam? How are seam finishes selected for a garment?

TS 9:52 Instruct students to read from several references and define the following terms related to seam finishes: trimming, clipping, and notching. Ask students to record the definitions and be prepared to discuss them with the class. Display Teaching Aid 75, Trimming, Grading, Clipping, and Notching, and review the steps to follow in performing each of the techniques illustrated.[B]

Welt Seam

TS 9:53 Display Teaching Aid 76, Welt Seam. Present an illustrated lecture to help students define welt seam. Demonstrate the construction of a welt seam. Instruct each student to prepare a welt seam sample to be placed in a seam sample notebook.

French Seams

TS 9:54 Display Teaching Aid 77, French Seam, and explain the steps involved in constructing a French Seam. Demonstrate construction of a French Seam. KEY QUESTIONS: How do French seams differ from other seams? What type of garment or fabric would require use of a French seam?

TS 9:55 Show students sample garments constructed with French seams. Lead a class discussion about the types of fabrics used with French seams. Instruct each student to prepare a French seam sample to be placed in a seam sample notebook.

TS 9:56 Demonstrate the process of trimming a French seam. Point out the importance of trimming accurately. Explain that a French seam is more difficult to construct and trim when the seam curves. Direct students in trimming French seam samples.

TS 9:57 Write or project the term mock French seam on a board or screen. Have students review several references to determine a definition. Point out that mock French seams are good substitutes for French seams when constructing curved seams.

Flat-Felled Seam

TS 9:58 Display Teaching Aid 78, Flat-Felled Seam. Present an illustrated lecture to help students define *flat-felled seam*. Have student volunteers design a visual display with flat-felled seam samples and illustrations. KEY QUESTIONS: When are flat-felled seams most commonly used? What is unique about a flat-felled seam? How do flat-felled seams differ from other seams?

TS 9:59 Show students sample garments constructed with flat-felled seams. Lead a class discussion about the durability of the flat-felled seam. Demonstrate the construction of a flat-felled seam. Instruct each student to prepare a flat-felled seam sample to be placed in a seam sample notebook.

Double-Stitched Seam

TS 9:60 Display Teaching Aid 79, Double-Stitched Seam. Provide students with a definition of *double-stitched seam*. KEY QUESTIONS: When are double-stitched seams used? What fabrics are suitable for double-stitched seams? What is the difference between double-stitched seams and flat-felled seams?

TS 9:61 Show students various garments constructed with double-stitched seams. Demonstrate the construction of a double-stitched seam. Instruct each student to prepare a double-stitched seam sample to be placed in a seam sample notebook.

Zigzag Seam Finish

TS 9:62 Display Teaching Aid 80, Seam Finishes. Provide students with a definition of *zigzag seam finish*. KEY QUESTIONS: When are zigzag seam finishes used? How does a zigzag seam finish compare to other types of seam finishes? Why is the zigzag seam finish used more frequently than many other types of seam finishes?

TS 9:63 Show students various garments constructed with a zigzag seam finish. Demonstrate the construction of a zigzag seam finish. Instruct each student to prepare a zigzag seam finish sample to be placed in a seam sample notebook.

Hand-Overcast Seam Finish

TS 9:64 Display Teaching Aid 80, Seam Finishes. Present an illustrated lecture to help students define *hand-overcast seam finish*. KEY QUESTION: When are hand overcast seam finishes used?

TS 9:65 Show students various garments constructed with the hand-overcast seam finish. Demonstrate the construction of a hand-overcast seam finish. Instruct each student to prepare a hand-overcast seam finish sample to be placed in a seam sample notebook.

Pinked Seam Finish

TS 9:66 Display Teaching Aid 80, Seam Finishes. Provide students with a definition of *pinked seam finish*. KEY QUESTIONS: When are pinked seam finishes used? What fabrics are best suited for a pinked seam finish? Why is the pinked seam finish used more frequently than many other types of seam finishes?

TS 9:67 Show students various garments constructed with a pinked seam finish. Demonstrate the construction of a pinked seam finish. Instruct students to prepare a pinked seam finish sample to be placed in a seam sample notebook.

Pinked and Stitched Seam Finish

TS 9:68 Display Teaching Aid 80, Seam Finishes. Present an illustrated lecture to help students define *pinked and stitched seam finish* KEY QUESTIONS: When are pinked and stitched seam finishes used? What fabrics are best suited for a pinked and stitched seam finish?

TS 9:69 Show students various garments constructed with a pinked and stitched seam finish. Demonstrate the construction of a pinked and stitched seam finish. Instruct each student to prepare a pinked and stitched sample to be placed in a seam sample notebook.

Clean Finished Seam

TS 9:70 Display Teaching Aid 80, Seam Finishes. Provide students with a definition of *clean finished seam*. KEY QUESTIONS: When are clean finished seam finishes used? What are the advantages of clean finishing a seam?

TS 9:71 Show students various garments constructed with clean finished seams. Lead a class discussion about clean finishing. Demonstrate the construction of a clean finished seam. Instruct each student to prepare a clean finished seam sample to be placed in a seam sample notebook.

HAND STITCHES

NOTE: The teacher may present all or a portion of the hand stitches covered in this section depending on the local situation, class assignments, and needs of students. A variety of hand stitches are discussed in order to provide comprehensive information from which the teacher may choose.

TS 9:72 Display Teaching Aid 81, Tips for Hand Stitching. Show samples of different types of hand stitches. Provide students with a definition of *hand stitches*. KEY QUESTIONS: When are hand stitches used? What parts of apparel garments are hand stitched? When would hand stitches be used instead of machine stitching? Why is beeswax applied to thread used in hand sewing? How often are hand stitches used in apparel manufacturing settings? custom sewing businesses? tailoring businesses? Why is hand stitching often considered a sign of high quality in apparel?

TS 9:73 Present a demonstration that shows the correct procedures for preparing a needle for hand sewing. Instruct students to practice threading a needle.

TS 9:74 Lead students to brainstorm for ways to make hand sewing faster and easier. Ask a student volunteer to present the ideas in a visual display for the classroom.[B]

Holding Hand Work

TS 9:75 Invite a resource person to speak to the class about hand sewing. Ask the speaker to demonstrate the correct way to hold fabric while hand sewing. Have the speaker help students practice the methods for holding the fabric. Guide students in preparing written questions prior to the speaker's presentation. KEY QUESTIONS: Why would some fabric be laid flat on a table and some fabric held off the table? What type of stitches can be made when fabric is held off the table?[B]

TS 9:76 Instruct students to read from several references to find definitions for the following terms associated with hand stitches: *backstitch, even basting stitches, uneven basting stitches, catchstitch, slipstitch, blind slipstitch, blanket stitch, buttonhole stitch, thread chains, hemming stitches, vertical hemming stitch, blind-hemming stitch, overcast stitch, running stitch, padding stitch, French tacks,* and *tailor's tacks*. Have students share definitions with the class.[B]

TS 9:77 Use an inductive method of instruction to help students identify various hand stitches. Examples for the lesson could be actual stitches on fabric samples and/or garments. After presenting an illustrated talk, divide the class into cooperative learning groups. Direct students to practice identifying hand stitches.

TS 9:78 Divide the class into cooperative learning groups. Assign to each group a type of hand stitch. Ask students to prepare a variety of samples of the assigned hand stitch and visually display the samples. Have students write brief summaries of how to perform each hand stitch and when it is used.[B]

TS 9:79 Give to each student a copy of Teaching Aid 82, Hand Stitch Case Studies. Instruct students to carefully read each case study and determine which hand stitching methods are most appropriate for the situations. Have each student write brief paragraphs to defend his or her answers. Ask student volunteers to share their answers with the class.[B]

TS 9:80 For an FHA/HERO chapter project, have chapter member construct clothing for dolls using the hand stitches taught in class. Use the sample clothing to display the stitches used. After the clothing has been displayed, donate the items to appropriate community charitable organizations. A variation on this activity might involve making bean bag toys in different shapes.[B][C]

Backstitch

TS 9:81 Display Teaching Aid 83, Backstitch. Present an illustrated lecture to help students define *backstitch*. Inform students that backstitching is durable and can be used for beginning and ending a seam, hand stitching zippers, topstitching, and understitching.

KEY QUESTIONS: Why is the backstitch an effective stitch? When should backstitching be used? How does backstitching differ from a basting stitch?

TS 9:82 Show students examples of backstitching. Demonstrate using a backstitch. Instruct each student to practice backstitching by preparing a sample to be placed in a sample notebook.

Basting Stitch

TS 9:83 Display Teaching Aid 84a, Hand Stitches. Ask selected students to present an illustrated talk that defines *even basting stitches* and *uneven basting stitches*. Emphasize that basting stitches are used to temporarily hold fabric layers together during fitting and construction. KEY QUESTIONS: What is the difference between an uneven basting stitch and even basting stitch? How does basting differ from backstitching? When is a basting stitch used?[B]

TS 9:84 Show students examples of basting stitches. Demonstrate using a basting stitch. Instruct students to practice the basting stitch by preparing a sample of the even basting stitch and a sample of the uneven basting stitch to be placed in a sample notebook.

Catchstitch

TS 9:85 Display Teaching Aid 84a, Hand Stitches. Provide students with a definition of *catchstitch*. Assist students in distinguishing between the two types of catchstitch, flat catchstitch and blind catchstitch. KEY QUESTIONS: What is the difference between flat catchstitch and blind catchstitch? Why are knitted fabrics typically associated with a catchstitch? When is a catchstitch used?

TS 9:86 Show students examples of the two types of catchstitch. Demonstrate using a flat catchstitch and blind catchstitch. Instruct each student to practice catchstitches by preparing samples of a flat catchstitch and blind catchstitch to be placed in a sample notebook.

Slipstitch

TS 9:87 Display Teaching Aid 84a, Hand Stitches. Present an illustrated lecture to help students define *slipstitch* and *blind slipstitch*. Assist students in distinguishing between the two types of slipstitch. KEY QUESTIONS: When is a slipstitch used? How does a blind slipstitch compare to a regular slipstitch? How does the slipstitch differ from the catchstitch?

TS 9:88 Show students examples of a slipstitch and a blind slipstitch. Demonstrate a slipstitch and a blind slipstitch. Instruct each student to practice slipstitches by preparing samples to be placed in a sample notebook.

Blanket Stitch

TS 9:89 Display Teaching Aid 84a, Hand Stitches. Write or project the term *blanket stitch* on a board or screen. Instruct students to select a word that relates to hand stitching for each of the letters in blanket stitch. Present an illustrated lecture to help students define *blanket stitch*. Emphasize that the blanket stitch is worked from left to right. KEY QUESTIONS: When is the blanket stitch used? What are advantages of using a blanket stitch? disadvantages?

TS 9:90 Show students a sample of a blanket stitch. Demonstrate using a blanket stitch. Instruct each student to practice making a blanket stitch by preparing a sample to be placed in a sample notebook.

Buttonhole Stitch

TS 9:91 Display Teaching Aid 84a, Hand Stitches. Have students read selected references to determine a definition of *buttonhole stitch*. Instruct student to compare a blanket stitch with a buttonhole stitch. Ask students to record the similarities and differences. KEY QUESTIONS: When is a buttonhole stitch used? When would one want to make buttonholes using the hand buttonhole stitch? How do machine stitched buttonholes and hand stitched buttonholes differ in appearance? Is the machine stitched buttonhole or the hand stitched buttonhole usually the strongest? Why?[B]

TS 9:92 Show students an example of a buttonhole stitch. Demonstrate the buttonhole stitch. Instruct each student to practice a buttonhole stitch by preparing a sample to be placed in a sample notebook.

Thread Chain

TS 9:93 Display Teaching Aid 85, Thread Chain. Provide students with a definition of *thread chain*. Present an illustrated lecture, using a flip chart or other medium, that identifies the steps to follow when constructing a thread chain. KEY QUESTIONS: When are thread chains used? What are the advantages of using a thread chain instead of a buttonhole or hook and eye? disadvantages?

TS 9:94 Show students a sample of a thread chain. Demonstrate procedures for making a thread chain and sew a button on another piece of fabric to illustrate how the two can serve as a fastener. Direct each student to practice making thread chains and to prepare a sample for a sample notebook.

Vertical Hemming Stitch

TS 9:95 Ask each student to bring a clothing item that has been hemmed by hand. Have students identify the hemming stitch used and record advantages and disadvantages of placing a hem in a garment by hand. Ask a few students to share their answers with the class. Display Teaching Aid 84b, Hand Stitches. Lead a class discussion to help students define *vertical hemming stitch*. KEY QUESTIONS: When would the vertical hemming stitch be used? What are advantages of a vertical hemming stitch? disadvantages?

TS 9:96 Show students an example of a vertical hemming stitch. Demonstrate the process of hemming a garment using the vertical hemming stitch. Instruct students to practice hemming garments using a vertical hemming stitch. Have each student place a small sample in a sample notebook.

Blind-Hemming Stitch

TS 9:97 Display Teaching Aid 84b, Hand Stitches. Present an illustrated lecture to help students define *blind-hemming stitch*. Show examples of a blind-hemming stitch made by machine and a blind-hemming stitch placed by hand. Instruct students to record advantages and disadvantages of each method. Have students share their answers with the class. KEY QUESTIONS: When would the blind-hemming stitch be used? What is the difference between a blind-hemming stitch and a vertical hemming stitch?[B]

TS 9:98 Show students an example of a blind-hemming stitch. Demonstrate to the class hemming a garment using a blind-hemming stitch. Instruct students to practice hemming garments using a blind-hemming stitch. Have each student place a sample in a sample notebook.

Overcast Stitch

TS 9:99 Display Teaching Aid 84b, Hand Stitches. Provide students with a definition of *overcast stitch*. KEY QUESTIONS: When would an overcast stitch be used? What garments are best suited for overcast stitching?

TS 9:100 Show students a sample of an overcast stitch. Demonstrate an overcast stitch. Direct each student to practice the overcast stitch. Have each student place a sample in a sample notebook.

Running Stitch

TS 9:101 Display Teaching Aid 84b, Hand Stitches. Provide students with a definition of *running stitch*. KEY QUESTIONS: When would a running stitch be used? How does a running stitch compare with a basting stitch? When would a running stitch be selected instead of a basting stitch?

TS 9:102 Show students an example of a running stitch. Demonstrate a running stitch. Instruct students to practice making running stitches. Have each student place a sample in a sample notebook.

Padding Stitch

TS 9:103 Display Teaching Aid 84b, Hand Stitches. Present an illustrated lecture to help students define padding stitch. Emphasize that padding stitches are permanent stitches and resemble temporary, diagonal basting stitches. KEY QUESTIONS: When are padding stitches used? How does one prevent padding stitches from showing on a garment's outer fabric?

TS 9:104 Show students an example of padding stitches. Demonstrate a padding stitch using long and short stitches. Instruct students to practice a padding stitch for holding interfacings and garment fabrics together using remnants. Have each student place a sample in a sample notebook.

French Tacks

TS 9:105 Display Teaching Aid 86, Tacks, and explain how *French tacks* are used in apparel construction. Point out that a French tack is used to hold two sections of a garment together while keeping both sections loose. KEY QUESTIONS: When are French tacks used? What method of finishing is used following the placement of French tacks?

TS 9:106 Show students an example of a French tack. Demonstrate construction of a French tack. Instruct students to practice making French tacks. Have each student place a sample in a sample notebook.

Tailor's Tacks

TS 9:107 Display Teaching Aid 86, Tacks. Present an illustrated lecture, using fabric and patterns, to help students define *tailor's tacks*. Point out that a tailor's tack requires more time than other transfer methods and must be used in some situations. Instruct students to record advantages and disadvantages of tailor's tacks. KEY QUESTIONS: When are tailor's tacks used? How do tailor's tacks differ from traditional methods of marking?[B]

TS 9:108 Show students an example of a tailor's tack. Demonstrate how to mark fabric using tailor's tacks. Instruct students to practice marking remnant fabrics using tailor's tacks. Have each student place a small sample in a sample notebook.

GARMENT REPAIR TECHNIQUES

TS 9:109 Invite a representative from a retail store to speak to the class about the mishandling of clothes by customers. Ask the speaker to bring some samples of mistreated clothing. Guide students in preparing written questions prior to the speaker's presentation. KEY QUESTIONS: Why do some garments need immediate repair when purchased? What can customers do to prevent additional wear on a garment in a clothing store? What are some common clothing repairs?[B]

TS 9:110 Instruct students to conduct interviews with family members and friends to determine the number of apparel items that are not repaired but discarded or given to charitable organizations. Questions that may be asked during the interview include the following:

- What types of repairs are made on your clothing?
- After the damage has been noticed, how quickly is the repair made?
- Are some articles of clothing worn before repairs are made?
- Do you make your own clothing repairs?
- Does one person in the household make the repairs?

- Have you had clothing repaired at alteration and repair businesses or by dry cleaners?
- Are clothing items sometimes donated to charitable groups rather than being repaired?

Ask each student to summarize interview findings in a paper. Evaluate papers for content and clarity. Have a few students share their papers with the class.[B]

TS 9:111 For an FHA/HERO chapter activity, have chapter members sponsor a clothing drive. Items to be collected are clothing pieces in good shape needing minor repairs. Instruct students to use clothing collected to practice the repair techniques discussed in class. Have students donate repaired articles of clothing to charitable organizations.[B][C]

Buttons

TS 9:112 Write or project the term *shank* on a board or screen. Ask students to read from selected references to determine a definition for shank. Present a demonstration to show the correct method for making a shank. KEY QUESTIONS: What is the purpose of a shank? What types of fabrics are best suited for shanks? What procedure can be used to reinforce a shank? How does a well-made shank contribute to the quality of a garment?[B]

TS 9:113 Instruct students to practice making shanks. Have each student use remnant fabrics and buttons for his or her sample. Direct each student to place a shank sample in a sample notebook.

TS 9:114 Have students write a paragraph to describe the procedures used for mending a garment prior to attaching a button. Ask students to include reasons proper mending procedures are important before button application.[B]

Buttonholes

TS 9:115 Lead a cooperative learning experience that allows groups of students to identify, produce, and present step-by-step examples of buttonhole repair.[B]

TS 9:116 Have students find articles of clothing from home that have buttonholes requiring repair. Instruct students to practice repairing buttonholes. Ask each student to write a brief summary paragraph about buttonhole repair.[B]

Snaps, Hooks, and Eyes

TS 9:117 Present a demonstration to illustrate the correct method for replacing snaps, hooks, and eyes. Emphasize why stitching is needed on both sides of the placement for hammer-on or no-sew snaps. Instruct students to record advantages and disadvantages of having snaps as closures for physically disabled people and for children. KEY QUESTIONS: What clothing is associated with snaps, hooks, and eyes? How can snaps, applied to clothing, benefit physically disabled people? children?[B]

Seam Reinforcement and Repair of Rips

TS 9:118 Lead students to brainstorm for reasons seams may need reinforcement or repair. Emphasize that repairing ripped seams is a common mending task. Point out that repairs should be performed professionally and carefully. KEY QUESTIONS: Why is clothing shipped to a store needing seam repairs? How should a repaired seam look?

TS 9:119 Present an illustrated lecture, using articles of clothing, to show how to repair seams by hand and machine. Point out the similarities and differences of the two methods. Instruct students to practice both methods of seam repair. Have students record advantages and disadvantages of each method.[B]

TS 9:120 Write or project the term *lock stitch* on a board or screen. Ask student volunteers to determine a definition for lock stitch. Present a demonstration that illustrates the correct procedures for completing a lock stitch.

TS 9:121 Display Teaching Aid 87, Reinforcing Seams. Lead a class discussion about the tips for reinforcing seams. Present a demonstration that describes the step-by-step procedure for reinforcing seams.

Darning

TS 9:122 Present an illustrated lecture to help students distinguish between a pattern darn and other types of darns. Show students samples of each type of darn. Instruct students to record advantages and disadvantages of darning in garment repair. Ask a few students to share their responses with the class. KEY QUESTIONS: When is each type of darn used? What is the difference between hand and machine darn?[B]

TS 9:123 Give each student a copy of Teaching Aid 88, Suggestions for Making Hand and Machine Darns. Present a demonstration illustrating the suggestions. Instruct students to follow guidelines carefully when darning.

TS 9:124 Divide the class into cooperative learning groups. Instruct each student to prepare a darn sample. Assign the following three classifications to each group: hand darn, machine darn, and pattern darn. Remind students to refer to the Apparel and Textiles *Production, Management, and Services Reference Book,* Chapter Nine, page 151, which gives step-by-step procedures for making successful darns. Instruct group members to summarize the darning experience in a paper. Each paper should include the following components:

- time spent on darning procedure
- appearance of the darn
- recommendations for selecting a darn stitch

Have elected group leaders share findings with the class. KEY QUESTIONS: Which darn is the simplest to make? most difficult? What recommendations might be made to someone selecting a darn stitch?[B][C]

Patching

TS 9:125 Provide students with definitions of *patching* and *appliqués*. Lead a cooperative learning experience that allows groups of students to produce and display patched and appliquéd clothing. Have appointed group leaders share the clothing with the class. KEY QUESTIONS: When would patching be beneficial in home sewing? What types of clothing are most commonly patched?[B][C]

TS 9:126 Present a demonstration that illustrates the correct procedures for patching a garment. Ask students to refer to the suggestions in Chapter Nine of the *Apparel and Textiles, Production, Management, and Services Reference Book.* Instruct students to practice patching techniques on garments collected from the clothing drive.

TS 9:127 For an FHA/HERO chapter activity, have chapter members practice patching by appliqué. Instruct each member to creatively design a 5" X 5" appliqué square. Have students construct the squares by practicing the patching techniques learned in class. Ask volunteer members to arrange the squares to form a quilt top. Have students finish the quilt by assembling the squares, adding batting, and a attaching a backing fabric. Use a tie method to attach the three pieces. Use the quilt as a decorative wall hanging for the classroom or donate it to an elderly care facility or child care center.[B][C]

Repairing and Reinserting Zippers

TS 9:128 Instruct students to read from several references to define the following terms related to zippers: *zipper, conventional zipper, separating zipper, invisible zipper, zipper foot, coil-constructed zipper, chain-constructed zipper, tape, teeth, coil, tab pull, bottom stop, top stop, overlap, underlap, placket,* and *fly front zipper insertion.* Ask each student to record his or her definitions and be prepared to share with the class.[B]

TS 9:129 Divide the class into cooperative learning groups. Instruct each group to prepare a set of flashcards for the terms related to a zipper. Students may use pictures or drawings as visuals for the terms. Have students practice identifying the terms associated with zippers by using flashcards.[B]

TS 9:130 Instruct students to read from several references about repairing and reinserting a zipper. Have each student record his or her findings in a brief paper. Ask a few students to share their papers with the class. KEY QUESTIONS: Why would one need to remove a zipper when making waistline alterations? How can a zipper be damaged?[B]

TS 9:131 Show students the following types of zippers: conventional zipper, separating zipper, and invisible zipper. Ask students to review each of the zippers carefully and record a list of differences and similarities. KEY QUESTIONS: What are the similarities between the zippers? differences? How are each of the zippers used?[B]

TS 9:132 Present a demonstration to show students how to apply a coil-constructed zipper to a garment using a zipper foot attachment. Point out the features of a coil-constructed zipper. Have students compare the advantages and disadvantages of using a zipper foot and inserting a zipper by hand. Instruct students to practice zipper application.[B]

TS 9:133 Lead a class discussion about the similarities in and differences between a chain-constructed zipper and a coil-constructed zipper. Show students examples of each type of zipper. KEY QUESTIONS: When would a chain-constructed zipper be used? Why? When would a coil-constructed zipper be used? Why?

TS 9:134 Demonstrate the correct procedures for replacing and making repairs to a zipper. For an FHA/HERO project, ask students to collect clothing in need of repair from neighbors, elderly care facilities, and child care centers. Instruct students to practice replacing zippers in the clothing. Have each student write a brief paragraph about the repairs that were made to the clothing.[B][C]

TS 9:135 Instruct students to read from several sources about the repair and reinsertion of a fly front zipper. Ask students to record the steps for applying the zipper. Students should refer to Chapter Nine of the *Apparel and Textiles Production, Management, and Services Reference Book* for additional information. Have student volunteers create a visual display of the appropriate application steps.[B]

TS 9:136 Display Teaching Aid 89, Shortening a Zipper. Present an illustrated lecture to show students the correct methods for shortening a zipper. Instruct students to practice the techniques demonstrated.[B]

TS 9:137 Present an illustrated lecture about the finishing touches needed following zipper application. Stress the importance of pressing. KEY QUESTIONS: What finishing steps may be needed following zipper application? Why is it important to press after the application of a zipper?

Repairing and Replacing Seam Pockets

TS 9:138 Instruct students to read from several references to define the following terms related to repairing and replacing seam pockets: *seam pocket, pocket tip, pocket bag, mouth of pocket, pocket facings, welt seam of pocket,* and *bar tack.* Ask each student to record his or her definitions and be prepared to share with the class.[B]

TS 9:139 Divide the class into cooperative learning groups. Ask each group to develop an illustration that describes each part of a pocket. Instruct students to write a brief description of steps required to repair or replace a seam pocket. Have elected group leaders share the illustrations with the class.[B][C]

TS 9:140 Lead students to brainstorm to list reasons for repairing or replacing seam pockets. KEY QUESTIONS: Why are seam pockets repaired? How are procedures for repair or replacement determined? What is meant by the term *replacing half a pocket*?

TS 9:141 Give to each student a copy of Teaching Aid 90, Replacing a Half Pocket. Present a demonstration that illustrates the correct procedures for replacing a half pocket. Instruct students to use the teaching aid and to practice the technique on clothes collected from the clothes drive.

TS 9:142 Present a demonstration that illustrates the correct steps in replacing a seam pocket. Ask a student volunteer to record the steps by writing or projecting them on a board or screen. Instruct students to practice the technique of replacing seam pockets on the clothes collected from the clothes drive.[B]

BASIC PRESSING TECHNIQUES

TS 9:143 Divide the class into cooperative learning groups. Instruct each group to define and demonstrate one of the following pressing techniques: *pressing*, *dry press*, *wet press*, and *steam press*. KEY QUESTIONS: Why are there different methods for pressing clothing? When are pounding blocks and clappers used in pressing? Why? What fabrics are associated with the dry press technique? wet press technique? steam press technique? What is the difference between wet press and steam press techniques?[B]

TS 9:144 Display Teaching Aid 91, Rules for Pressing. Present an illustrated lecture about pressing requirements for the following fabrics: cotton, wool, silk, polyester, and acetate. Instruct students to practice pressing techniques using remnant fabrics.

TS 9:145 Have students read from several references about pressing equipment. Instruct each student to write a report and prepare a visual about one piece of pressing equipment. Have students include safety guidelines in the reports. Ask each student to share his or her report with the class.[B][C]

TS 9:146 Display Teaching Aid 92, Guidelines for Pressing During Construction. Present an illustrated lecture about pressing during construction. Instruct students to record the similarities in and differences between pressing and ironing. Direct students to practice pressing techniques.[B]

Pressing Construction Details

TS 9:147 Lead students to brainstorm for construction details that may need specific attention during pressing. Instruct each student to select one detail from the brainstormed list to demonstrate for the class. Have students write brief paragraphs on correct pressing procedures. KEY QUESTIONS: Why are special pressing techniques required for construction details? Why is it important to give some detailed areas of a garment more attention during pressing?[B]

TS 9:148 Present a demonstration that illustrates pressing darts using correct methods. Have students examine the pressed darts to determine characteristics of well-pressed darts. Have students prepare samples for sample notebooks. KEY QUESTIONS: Why is each type of dart pressed differently? What changes might be made in a garment silhouette if darts are not pressed correctly?

TS 9:149 Instruct students to read from several references about the methods for pressing pleats. Ask each student to summarize his or her findings in a paper. Have several students demonstrate the procedures for the class. Instruct students to practice pressing pleats. Have each student prepare a sample for a sample notebook. KEY QUESTIONS: Why should pleats be allowed to dry before removing them from the pressing surface? What methods can be used to remove unwanted ridges? What is the purpose of using a press cloth? When should basting thread be removed from pleats? How are techniques for pressing tucks different from those used when pressing pleats?[B]

TS 9:150 Present a demonstration that illustrates removing fullness from fabric by holding the side of the iron parallel to and a few inches away from the stitching line. Emphasize that this method of removing fullness is most effective when pressing fabrics made of natural fibers. Instruct students to practice removing fullness on sample garments.

TS 9:151 Present a demonstration that illustrates the correct procedures for pressing gathers and shirring. Have students practice the pressing techniques by preparing a sample for a sample notebook.

TS 9:152 Instruct volunteer students to prepare a visual display about pressing procedures for zippers and plackets. Ask students to prepare and label examples for sample notebooks. KEY QUESTIONS: Why would using a cushion benefit pressing procedures for a zipper and placket? How would use of a tailor's ham assist in pressing curved areas of garments?

TS 9:153 Present a demonstration that illustrates the correct procedures for pressing bound buttonholes and pockets. Emphasize why both areas should be pressed from the right and wrong sides. Instruct students to practice pressing techniques by preparing samples for sample notebooks.

TS 9:154 Present a demonstration that illustrates the correct procedures for pressing a hem. Point out that lifting an iron up and then applying the heat is the most effective method for pressing a hem. Instruct students to practice pressing techniques by preparing a sample for a sample notebook.

Final Pressing

TS 9:155 Lead a field trip to a clothing manufacturing plant or tailor's shop where students can observe garments in the final stages of construction. Guide students in preparing written questions prior to the field trip.[B]

TS 9:156 Instruct students to research the final steps taken in completing a garment. Ask students to read from several sources in gathering the information. Have each student summarize the information in a paper. Evaluate the paper for content and clarity.[B]

TS 9:157 Display Teaching Aid 93, Final Pressing. Present an illustrated lecture about the final pressing of a garment. Emphasize that pressing is an important procedure used in retail stores, alteration businesses, and dry cleaners. Instruct each student to practice techniques discussed. KEY QUESTIONS: What expectations does the customer have upon receiving garments following alterations? Why is pressing an important part of the alteration process?

TS 9:158 Instruct students to create a visual display that illustrates the final steps in pressing a garment. Divide the class into cooperative learning groups and assign each group a component of the pressing procedures to illustrate. Have elected group leaders share the group contributions with the class.[B][C]

10

Measuring for Custom-Made Garments

ESSENTIAL ELEMENT

- Apply appropriate procedures when measuring for custom garment.(q4A)

OBJECTIVES TO ACHIEVE

- Summarize factors to consider when measuring for custom garments.
- Identify various measuring tools used for apparel construction and their major functions.
- Demonstrate the correct procedures for measuring the human body.
- Determine the figure types for females, males, and children.
- Describe the methods used to select pattern size.
- Analyze the uses and functions of the pattern envelope.

ASSIGNMENT

- Read Chapter Ten in the *Apparel and Textiles Production, Management, and Services Reference Book.*

TS 10:1* Provide examples of a commercial pattern, a production pattern, and a form. Have students compare the patterns closely and list any differences. Demonstrate the use of a form in the development of patterns.[B]

TS 10:2 Demonstrate the pattern draping method of constructing a pattern. Use Teaching Aid 94, Functions of Forms for Custom Sewing, to instruct students on the purposes of using forms in the development of custom garments. Divide the class into cooperative learning groups and have the groups drape fabric on a form. Direct students to select a simple design, drape the fabric, and create a paper pattern from the draped fabric.

*** TS 10:1 indicates teaching strategy, chapter 10, number 1.**
[B] = Basic Skill Reinforcement
[C] = Common Essential Element

FACTORS TO CONSIDER WHEN MEASURING

TS 10:3 Have students read references on *ease* and develop a class definition. Lead a class discussion comparing the amount of ease in garments and determining why ease is important to an accurate fit. KEY QUESTIONS: What happens to the body when a garment does not have enough ease? What is determined by exact body measurements?[B]

TS 10:4 Ask each student to create his or her own personal measurement chart. Each personal measurement chart should include the basic information necessary to record measurements. Originality and creativity should also be stressed. Ask volunteers to share their personal measurement charts with the class. Students should keep their charts for use in future teaching strategies. An example of a personal measurement chart is shown in Figure 10.1 in the *Apparel and Textiles Production, Management, and Services Reference Book.*[B][C]

TS 10:5 Bring examples of commercial patterns to class. Have students compare their personal measurement charts with the size charts on the backs of the pattern envelopes and determine what sizes of patterns they should purchase. Point out that it is unlikely that all personal measurements will exactly match the commercial pattern measurements and that asymmetrical figures should be accounted for when measuring and selecting a pattern size. Have students make notes of any alterations that may be required in order to achieve a perfect fit.[B]

MEASURING TOOLS

TS 10:6 Provide students with information regarding measuring tools. Display measuring tools such as the following: tape measure, yardstick, sewing gauge, hem gauge, transparent ruler, skirt marker, French curve, hip curve, dressmakers gauge, and cutting board. Allow students to draw slips of paper with names of measuring tools on them from a container. Ask students to match the names on the slips of paper to the correct measuring tools displayed in the classroom. Demonstrate the use of each tool.[B]

TS 10:7 Have students design a display using the various types of measuring tools. Each tool should be clearly labeled. An example of how each tool is used to measure should be depicted. Encourage students to be creative with the design but stress the importance of clarity.[B]

TS 10:8 Ask two students to role play a scene in which the employee measures the customer with tools other than measuring tools used for sewing purposes. Place an odd assortment of the following types of measuring tools in a container: measuring spoons, measuring cups, tire gauge, dip stick, thermometer, and kitchen scale. Have the employee pull these items out of the container and make attempts to measure the customer in order to achieve accurate sewing and fitting of garments. Students chosen for the role play should be outgoing and have the ability to laugh at themselves. Lead a class discussion on the importance of using the correct measuring tools when measuring for custom sewing.

MEASURING THE HUMAN FIGURE

TS 10:9 Divide the class into pairs and have them record their body measurements on their personal measurement charts. Instruct students to study Teaching Aid 95, Taking Body Measurements. Have each student measure his or her partner and record the measurements on the personal measurement chart.[B]

TS 10:10 Have each student complete a personal measurement chart for a child and a person of the opposite sex. Have students write paragraphs describing how the measuring process differs for a man, woman, and child. Have each student measure the same child after three to six months and note the changes on the personal measurement chart.[B]

TS 10:11 Show an audiovisual on the proper procedure for measuring a customer. Lead students to brainstorm problems that can occur when measuring a customer and possible ways to deal with difficult situations and/or customers.

TS 10:12 Lead a class discussion on technological innovations in wardrobe planning and apparel retailing. Explain that technology has revolutionized the apparel industry by promoting efficiency in measuring clients, increasing accuracy of fit, and improving customer satisfaction. Share information on systems available that allow computer-assisted figure analysis for both men and women. Emphasize that some businesses now use computers to assist in custom tailoring garments for improved fit. KEY QUESTIONS: How do tailors and dressmakers use computer systems to analyze clients' figures? How has technology affected the custom sewing business? How are computers used during the measuring process to improve the fit of garments? CRITICAL QUESTION: What types of training are required to use computer-assisted measuring systems?

Measuring Women

TS 10:13 Write or project on a board or screen the six basic measurements taken when measuring women. Ask a volunteer to indicate on her body, or on a form, where each of the measurements is taken. In addition, demonstrate the proper way to locate the natural waistline. KEY QUESTION: What should a woman wear when being measured?[C]

TS 10:14 Divide the class into pairs and assign each pair one or more of the following measurements:

- 3" below waist
- 7" below waist
- 9" below waist
- shoulder length
- upper back width
- below neck back width
- center front bodice length
- shoulder to bust point bodice length
- bust point to waist bodice length
- center back bodice length

- over the shoulder blade bodice length
- shoulder to elbow
- shoulder to wrist or arm length
- girth or arm circumference
- wrist
- center front skirt length
- right side skirt length
- center back skirt length
- left side skirt length

Have each pair of students read references on the assigned measurement and select a model and speaker. Have the speaker demonstrate on the model the proper measuring techniques for the assigned measurement.[B][C]

Measuring Men and Boys

TS 10:15 Show an audiovisual on the proper procedures for measuring men and boys. KEY QUESTIONS: How does measuring a man differ from measuring a woman? What should a man wear when being measured?

TS 10:16 Write or project on a board or screen the six basic measurements taken for men. Ask a volunteer to indicate on his body, or on a form, where each of the measurements is taken. Lead a class discussion on the differences in measuring a woman and a man. Instruct students on the difference in the terms *crotch length* and *crotch depth*.

TS 10:17 Compare the following measurements for men with comparable measurements for women: back neck to waist, shoulder length, arm length, trouser inseam, and trouser outseam. Lead a class discussion on the reasons measurements for men and women differ. KEY QUESTIONS: Would it be necessary for a woman to be measured for crotch depth and crotch length when being fitted in a pair of slacks? Why? Why do measurements for men and women differ?

Measuring Children

TS 10:18 Ask students to recall instances in their childhoods of being measured. Memories may include marking off height on a door frame or having feet measured in a shoe store. Have each student write a short paper on childhood memories. Have students design a display for their papers.[B]

TS 10:19 Lead students to brainstorm for different ways to get a child to cooperate when being measured. Conduct a role play where a student plays a child being measured for formal attire to be worn in a wedding. Have another student act as the employee trying to measure the child. A student may also play the part of a disinterested, preoccupied parent who will not help the employee control the child. Allow students to spend time together to coordinate and organize the role play.

TS 10:20 Invite several children of different ages to be measured in class. Assign a group of students to each child and have students obtain the basic measurements of the children and two additional measurements needed when altering patterns for children. Students should design personal measurement charts for the children to keep. KEY QUESTION: What should a child wear when being measured to obtain the most accurate measurements possible?[B][C]

DETERMINING FIGURE TYPE

TS 10:21 Read the descriptions of the different figure types for men, women, and children. Descriptions are located in tables 10.1, 10.2, and 10.3 in the *Apparel and Textiles Production, Management, and Services Reference Book*. Ask the students to identify the figure type described. The class can be divided into two sections, and a Jeopardy or relay-type of game can be played. When a student's answer correctly matches the definition and figure type, he or she is seated. The team with all members seated first should be declared the winning team.

TS 10:22 Show students pictures of different figure types. Ask students to determine the figure type of each picture and write it on a piece of paper. When all the pictures have been shown, discuss each figure type. Try to agree on each figure type by having students express their opinions and defend their decisions. For example, a picture of a teenage boy who has grown a great deal and is now larger than the average adult male would fall into the men's figure type rather than the teen-boys' figure type.[B]

TS 10:23 Bring samples of patterns for women and men to class. Have students determine their figure types by comparing their measurements to those on the backs of the pattern envelopes. Ask students if they expect their figure types to change. If there are twins in the class, ask them to tell the class about the difference or similarities in their figure types. CRITICAL QUESTIONS: In what ways can figure types change? Will your figure type become similar to that of your parent of the same sex? Why?[B]

TS 10:24 Have students cut pictures of different figure types out of magazines and pattern books. Students should mount and label the pictures in a display to present to the class. The figure types should include women, men, and children.[B]

SELECTING PATTERN SIZE

TS 10:25 Bring patterns for women, men, and children from various manufacturers to class. Have students compare the measurements on the backs of the pattern envelopes. Once students determine that pattern companies use standard measurements on all of their patterns, have them select pattern sizes that are best for their figure types. KEY QUESTIONS: In what year were commercial pattern measurements standardized? Why do patterns from different companies tend to fit differently?[B]

TS 10:26 Select different brands of similar patterns of the same size and have students compare the measurements of the patterns. Divide the class into cooperative learning groups. Have each group compare the shoulder width slant, shape of the armhole and neckline, and slant of the underarm on two patterns of different brands. Have each group identify the similarities and differences in the patterns. A written and oral report should be presented by each group. Display Teaching Aid 96, Comparing Patterns from Different Companies, to summarize the lesson.[B]

Assisting Clients

TS 10:27 Outline the guidelines that should be followed by a custom sewer when accepting a job from a client. Select two students to conduct a role play in which the custom sewer accepts a job and follows the guidelines discussed. Have one student play the part of the custom sewer and the other the part of the customer. Variations of the basic theme can be performed. For example, the customer can be rude and pretentious, the custom sewer can act uninterested and rude, or the custom sewer can ignore the guidelines and discover the problems that can develop when shortcuts are taken.

TS 10:28 Show students Teaching Aid 97, Guidelines for Custom Sewers, and lead a class discussion on the importance of custom sewers following certain guidelines. Ask students to list and discuss possible consequences of not following guidelines.[B]

Using the Pattern Envelope

TS 10:29 Bring enough pattern envelopes to class for each student. Have students record the following information from the fronts of the pattern envelopes: pattern brand, pattern number, price, number of different styles shown, special features of the pattern, figure type and size, and bust or chest measurement. Have students exchange papers and pattern envelopes and check the information for accuracy.[B]

TS 10:30 Bring enough pattern envelopes to class for each student. Have students record the following information from the backs of the pattern envelopes: garment description, fabric and design suitability, number of pattern pieces, body measurements, yardage chart, suggested fabrics, additional yardage for nap, garment dimensions, notions required, number of line drawings of different views, and company name and address. Have students exchange papers and pattern envelopes and check the information for accuracy.[B]

TS 10:31 Have each student design his or her own pattern envelope. The pattern envelopes may be as creative and different as desired while including basic information. The patterns can be for men, women, or children. If some students are less artistic than others, encourage them to create pattern envelopes in foreign languages or design new types of envelopes to which all pattern pieces can be returned easily. Have students present their pattern envelopes to the class.[B]

11

Pattern Alteration Procedures

ESSENTIAL ELEMENT

- Apply pattern alteration procedures to ensure custom fit of garment.(q4B)

OBJECTIVES TO ACHIEVE

- Identify characteristics of a well-fitted garment.
- Determine factors to consider when selecting patterns.
- Explain the importance of taking accurate client measurements and describe procedures for comparing measurements to pattern pieces.
- Apply procedures for completing basic pattern alterations.
- Examine the importance of fitting altered patterns.
- Compare procedures for combining patterns of different styles and patterns of different sizes.

ASSIGNMENT

- Read Chapter Eleven in the *Apparel and Textiles Production, Management, and Services Reference Book.*

CHARACTERISTICS OF A WELL-FITTED GARMENT

TS 11:1* Show slides or pictures of garments that fit well and garments that fit poorly. Have students identify the fit problems of the poorly fitting garments. KEY QUESTION: Why is it important for an employee in the retail or clothing business to be able to determine if a garment fits well?

TS 11:2 Write or project the characteristics of a well-fitted garment on a board or screen. Lead a class discussion on how characteristics of good fit are related to and dependent upon each other. Ask students to describe how they feel when wearing garments that do not fit well.

* TS 11:1 indicates teaching strategy, chapter 11, number 1.
[B] = Basic Skill Reinforcement
[C] = Common Essential Element

Grain

TS 11:3 Have students read references in order to define the term *grain*. Find examples of garments that are off-grain and ask the class if they can determine what is wrong with the garments. Have each student write a short paper explaining why grain is important to the proper fit of a garment.[B]

Balance

TS 11:4 Show pictures of garments that appear to be unbalanced due to large body bulges. Lead students to brainstorm for other reasons garments appear unbalanced. KEY QUESTION: How can balance be restored to a garment that appears unbalanced?

TS 11:5 Have students examine pictures from catalogs and pattern books of maternity clothing and/or clothing for persons with physical disabilities. Also have students view pregnant women and persons with physical disabilities to see how difficult it is to maintain proper balance when dressing an unusual figure. Have students write paragraphs suggesting ways to achieve a balanced appearance and well-fitted garment when the proportions of the body are unbalanced.[B]

Ease

TS 11:6 Review the term *ease* with students. Divide the class into pairs. Direct each student to measure his or her partner's garments to determine the amount of ease included. Remind students that a tuck has two thicknesses. Have each student record the amount of ease his or her partner's clothing has around the chest, waist, and hips. Students should also note the intended purposes of the garments, the types of fabric of which the garments are made, and the styles of the garments.[B]

Set

TS 11:7 Write or project the following basic body bulges on a board or screen: bust, end of shoulder, shoulder blade, elbow, abdomen, side hip, and back hip. Locate each body bulge on a form. Lead a class discussion about how some garments that do not set well on the body affect a person's overall appearance. Ask students if they have worn garments that did not set correctly. KEY QUESTION: When do horizontal wrinkles indicate the improper set of a garment?

TS 11:8 Use Teaching Aid 98, Straining Over Body Curves, to show students the different ways a garment can strain against the body and cause unsightly wrinkles, bulges, and sags. Ask students to identify the body bulge causing each strain shown on the teaching aid.

Line

TS 11:9 Review the term *line* with students, stressing that lines may be decorative or structural. Show students audiovisuals of garments with both decorative and structural lines. Have students determine which type of line is included in each garment.

TS 11:10 Show garments with horizontal, vertical, and diagonal construction lines. Have students determine which lines make figures appear taller, wider, shorter, and thinner. Have students view people and the types of garment lines they are wearing. Students may view people at a mall, an airport, a church, or any other public place. It may be necessary for students to watch for people wearing striped fabric. Because of the limited amount of time that a garment may be viewed, students may not be able to notice construction lines as readily as fabric lines. The same effect and results can be achieved by viewing garments made from striped fabric. Have students use Teaching Aid 99, Observing Garment Lines, to record their observations. Students should share their observations with the class.[B]

TS 11:11 Show students Teaching Aid 100, Circumference and Silhouette Seams, and ask them to identify each circumference seam and each silhouette seam by name, such as armseye, hemline, and side seams. Have students read references to define the following terms: *armseye seam*, *center back seam*, *center front seam*, *darts* and *tucks*, *neckline seam*, *shoulder seam*, *side seam*, and *waistline seam*.[B]

PATTERN SELECTION

TS 11:12 Ask each student to pretend to select a pattern for one of his or her parents. Have students provide written information for the following factors that should be considered when selecting a pattern:

- purpose of garment
- current fashion trends
- elements and principles of design
- type of fabric to be used
- figure type and pattern size
- sewing ability of the person who will construct the garment

Students should describe each of the above factors in relationship to the parent for whom they are selecting the patterns. Students may choose patterns that they will sew for their parents or patterns that their parents are responsible for sewing.[B]

TS 11:13 Conduct a role play in which one student plays a customer who wants to make a garment from an inappropriate type of fabric and wants to use a pattern that is too difficult for his or her sewing ability. Have the other student play a helpful employee who tries to assist the customer in making wise choices. Another student can play the part of a different customer who refuses to believe that size sixteen is her correct pattern size. She continues to buy a size twelve pattern and attempt to alter it to a size sixteen. When her garments do not fit correctly, she returns to the employee to complain. Lead a class discussion on how to handle difficult customers tactfully.

PATTERN ALTERATION

Measuring Clients

TS 11:14 Review the procedures for measuring the human figure presented in Chapter 10 of the *Apparel and Textiles Production, Management, and Services Reference Book.*

Instruct students on the reasons additional measurements are necessary when altering patterns. KEY QUESTIONS: What should a female client wear when being measured? a male client? a child? Why is it important to measure accurately?

TS 11:15 Show students Teaching Aid 101, Additional Measurements Needed for Pattern Alterations, and have them determine which measurements are needed when altering patterns for a woman, a man, and a child. Have students explain why certain measurements are needed for certain figure types.[B]

Comparing Measurements

TS 11:16 Lead a class discussion on comparing a client's figure measurements with the corresponding measurements on an actual pattern. KEY QUESTIONS: Which measurements are compared with the measurements appearing on the pattern envelope? Should a client's measurements exactly match those of the pattern? Why? How can one tell if a pattern piece must be altered?

TS 11:17 Demonstrate the techniques for measuring pattern pieces and comparing those measurements to the client's figure measurements. KEY QUESTIONS: Why should pattern pieces measure more than the figure measurements of a client? What average ease amounts should be included when altering patterns?

Performing Basic Pattern Alterations

TS 11:18 Have seven students draw papers with the following statements from a container: length alterations above the waist, length alterations below the waist or overall length, length alterations at the sleeve, dart placement, width adjustments at the bust, width adjustments at the waist, and width adjustments at the hip. Ask students to confer and line up in the correct order in which the alterations should be performed. While students are conferring, lead a class discussion with the rest of the class on why it is important to perform alterations in a certain order. Once the seven students are lined up, have them read the slips of paper to the class in the correct order. Other class members can disagree with the order and place the students in the order they believe to be correct. Continue this process until students are lined up in the correct order.[B]

TS 11:19 Assign each student or a group of students one of the alteration guidelines listed on page 196 of the *Apparel and Textiles Production, Management, and Services Reference Book.* Have each student or group of students demonstrate the assigned guideline and explain why following the guideline is helpful when altering a pattern. Provide tools needed for the demonstrations or ask students to provide the needed tools. Students should be encouraged to exhibit creativity in developing their presentations.[B]

TS 11:20 Demonstrate the correct procedures for increasing the length of the following: fitted sleeves, kimono sleeves, raglan sleeves, shoulder yokes, shoulder seams, pants, and dresses and skirts. Post illustrations of each alteration process along with steps to follow. Emphasize that similar alterations are performed on both women's and men's garments. Give each student a pattern piece of one of the items listed above. Have students increase the lengths of their pattern pieces by 2", following the directions given during the demonstration and referring to the posted illustrations. Students may require supervision and individual assistance during this activity.[B]

TS 11:21 Demonstrate the correct procedures for decreasing the length of the following: fitted sleeves, kimono sleeves, raglan sleeves, shoulder yokes, shoulder seams, pants, and dresses and skirts. Post illustrations of each alteration process along with steps to follow. Emphasize that similar alterations are performed on both women's and men's garments. Give each student a pattern piece of one of the items listed above. Have students decrease the lengths of their pattern pieces by 1", following the directions given during the demonstration and referring to the posted illustrations. Students may require supervision and individual assistance during this activity.[B]

TS 11:22 Demonstrate the correct procedures for altering the bust area of a pattern piece. Post illustrations of each alteration process along with steps to follow. Give each student a bodice pattern piece. Have students raise the bust darts 1", lower the bust darts 1", and enlarge the bust areas by 1", following the directions given during the demonstration and referring to the posted illustrations. Students may require supervision and individual assistance during this activity.[B]

TS 11:23 Demonstrate the correct procedures for increasing the waistlines of the following garments: fitted dresses, A-line dresses, pants, and gored skirts. Post illustrations of each alteration process along with steps to follow. Emphasize that similar alterations are performed on both women's and men's garments. Give each student a pattern piece of one of the items listed above. Have students increase the waistlines of their pattern pieces by 1", following the directions given during the demonstration and referring to the posted illustrations. Students may require supervision and individual assistance during this activity.[B]

TS 11:24 Demonstrate the correct procedures for decreasing the waistlines of the following garments: fitted dresses, A-line dresses, pants, and gored skirts. Post illustrations of each alteration process along with steps to follow. Emphasize that similar alterations are performed on both women's and men's garments. Give each student a pattern piece of one of the items listed above. Have students decrease the waistlines of their pattern pieces by 1/2", following the directions given during the demonstration and referring to the posted illustrations. Students may require supervision and individual assistance during this activity.[B]

TS 11:25 Demonstrate the correct procedures for increasing the hip lines of the following garments: fitted skirts, A-line dresses, pants, and gored skirts. Post illustrations of each alteration process along with steps to follow. Emphasize that similar alterations are performed on both women's and men's garments. Give each student a pattern piece of one of the items listed above. Have students increase the hip lines of their pattern pieces by 1 1/2", following the directions given during the demonstration and referring to the posted illustrations. Students may require supervision and individual assistance during this activity.[B]

TS 11:26 Demonstrate the correct procedures for decreasing the hip lines of the following garments: fitted skirts, A-line dresses, pants, and gored skirts. Post illustrations of each alteration process along with steps to follow. Emphasize that similar alterations are performed on both women's and men's garments. Give each student a pattern piece of one of the items listed above. Have students decrease the hip lines of their pattern pieces by 1/2", following the directions given during the demonstration and referring to the posted illustrations. Students may require supervision and individual assistance during this activity.[B]

TS 11:27 Demonstrate the correct procedures for increasing the crotch length and crotch depth of pants. Post illustrations of each alteration process along with steps to follow. Emphasize that similar alterations are performed on women's slacks and men's pants. Give each student a pants pattern piece. Have students increase the crotch lengths by 1 1/2" and increase the crotch depths by 1", following the directions given during the demonstration and referring to the posted illustrations. Students may require supervision and individual assistance during this activity.[B]

TS 11:28 Demonstrate the correct procedures for decreasing the crotch length and crotch depth of pants. Post illustrations of each alteration process along with steps to follow. Emphasize that similar alterations are performed on women's slacks and men's pants. Give each student a pants pattern piece. Have students decrease the crotch lengths by 1/2" and decrease the crotch depths by 1", following the directions given during the demonstration and referring to the posted illustrations. Students may require supervision and individual assistance during this activity.[B]

TS 11:29 Show an audiovisual on basic pattern alteration procedures. Have students write papers describing what pattern alterations they must make for patterns to fit them correctly.[B]

TS 11:30 Divide the class into cooperative learning groups, assigning and supplying each group with one of the following patterns: slacks or trousers, gored skirt, fitted skirt, A-line dress, fitted dress, and simple bodice. Direct each group to alter their pattern so it is either one size larger or one size smaller. When alterations are complete, have group leaders explain how the patterns were altered.[B][C]

Fitting the Pattern

TS 11:31 Have students read from selected references about various techniques for fitting patterns. Have two students volunteer to demonstrate the procedure of placing a pattern on a client's body to check for fit. Provide students with altered pattern pieces and other necessary tools and equipment. Instruct the class to identify areas of the pattern requiring further alterations.[B]

TS 11:32 Demonstrate the procedure for fitting a pattern using the grosgrain ribbon method. A form may be used to demonstrate this procedure. Ask students to list on paper the advantages and disadvantages of both the grosgrain ribbon method of fitting a pattern and the method of slipping a pattern onto a client's body.[B]

TS 11:33 Display Teaching Aid 102, Guidelines for Fitting Patterns, and lead a class discussion on the guidelines that should be followed when fitting a pattern. Ask students who have been fitted for patterns to share their experiences with the class, explaining what resulted when guidelines for fitting patterns were not followed.

ALTERING CHILDREN'S PATTERNS

TS 11:34 Show students several different children's patterns. Lead students to brainstorm for ways to alter the patterns to provide room for growth of a child. Ask a volunteer to record the ideas. After the brainstorming session, divide the class into cooperative learning groups. Give each group one of the children's patterns and several of the alteration ideas listed. Instruct each group to alter the assigned pattern to achieve the alterations suggested. Have the groups present their altered patterns to the class and describe what alterations could and could not be achieved and why.[B]

TS 11:35 Provide several samples of children's garments. Have students examine the garments, looking for provisions made for growth. Have each student explain in writing how the garments were constructed to allow for a child's growth. In addition, instruct students to describe how patterns can be altered to include each provision for growth. KEY QUESTIONS: What types of sleeves are best for children's garments? What is the maximum amount of hem that can be left in a child's garment? Why does this differ from the hem of an adult's garment?[B]

COMBINING PATTERN STYLES

TS 11:36 Divide the class into cooperative learning groups and give each group two or three different patterns that can be combined. Have each group select one or more students to be the head designer(s) within the group, with other group members being assistant designers. Have the groups sketch new designs using a combination of the patterns. Once the groups complete their sketches, the head designers should present their best designs to the class. Once all designs are presented, create a display with the original patterns and the new designs created by combining the patterns.[C]

TS 11:37 Have students remain in the cooperative learning groups formed in teaching strategy 11:36. Instruct each group to combine pattern pieces to create the design previously presented to the class. Have students fit the pattern pieces together and pin them on a form or on a student in the group. Students should be aware of the different styles of sleeves, collars, and necklines and how they fit the bodice. Have each group compose a paragraph describing how the pattern pieces were combined. Students may require supervision and assistance during this activity.[B][C]

COMBINING PATTERN SIZES

TS 11:38 Show examples of patterns that include markings for more than one size on the pattern pieces. Have each student write a paper on the advantages and disadvantages of these types of patterns. Ask students who have used this type of pattern to relate their experiences. KEY QUESTION: Why would it be helpful for a person who needs a size fourteen skirt and a size twelve blouse to make a dress from a pattern that is marked with several different sizes?[B]

TS 11:39 Demonstrate the proper procedures for combining two patterns of different sizes at the waist. Cut both patterns apart at the waist and tape the two different sizes back together, following the general guidelines listed on page 208 of the *Apparel and Textiles Production, Management, and Services Reference Book.* Display Teaching Aid 103, Combining Patterns of Different Sizes, to review. Have students combine patterns of different sizes to practice the procedure demonstrated.[B]

12

Unit Construction Techniques

ESSENTIAL ELEMENT

- Apply unit construction techniques.(q4C)

OBJECTIVES TO ACHIEVE

- Identify types of information found on the pattern and the pattern guide sheet.
- Demonstrate proper procedures for preparing fabric, laying out a pattern, and cutting.
- Compare methods of transferring pattern symbols to fabric.
- Compare procedures for constructing and attaching facings, interfacing, and linings.
- Demonstrate methods of constructing seams, casings, and hems.
- Apply procedures for constructing and attaching collars, sleeves, and waistbands.
- Outline methods of forming buttonholes and attaching pockets and zippers.
- Discuss the importance of fitting garments during unit construction.

ASSIGNMENT

- Read Chapter Twelve in the *Apparel and Textiles Production, Management, and Services Reference Book.*

TS 12:1* Write or project the terms *unit method of construction* and *unit* on a board or screen. Lead a class discussion to help students define these terms. Emphasize that clothing manufacturers often use the unit method of construction because it incorporates effective time management. KEY QUESTIONS: What is the unit method of construction? What are the advantages of the unit method of construction? the disadvantages?

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* TS 12:1 indicates teaching strategy, chapter 12, number 1.
[B] = Basic Skill Reinforcement
[C] = Common Essential Element

TS 12:2 Prepare a demonstration that illustrates unit construction. Point out to students that construction, such as darts, tucks, gathers, and pleats, should be completed within each unit before units are sewn together. Lead students to brainstorm to identify the benefits of using the unit method of construction.

PATTERNS

TS 12:3 Lead students to brainstorm to identify the information provided on patterns. KEY QUESTIONS: How does the information provided on a pattern assist in construction? Why are pattern pieces marked with specific information?

Pattern Symbols

TS 12:4 Have students read from several references to determine definitions for the following terms associated with patterns: *pattern symbols, pattern markings, adjustment line* or *alteration line, buttonhole symbol, center front marking, center back marking, dot, cutting line, dart symbol, grain line marking, hemline, notches, placement line, place on fold bracket*, and *stitching line* or *seam line*. Instruct students to record definitions and be prepared to share them with the class.[B]

TS 12:5 Display Teaching Aids 104a and 104b, Pattern Symbols. Lead a class discussion about the pattern symbols, the location of each, and the purpose each has in apparel construction. Have students use Teaching Aids 104c and 104d to practice identifying pattern symbols. KEY QUESTION: How can understanding pattern symbols be beneficial? CRITICAL QUESTION: What is the relationship between understanding patterns symbols and success in apparel construction?

TS 12:6 Divide the class into cooperative learning groups. Have each group develop flashcards to help in pattern symbol identification. Instruct students to use the flashcards to practice identifying pattern symbols.[B]

TS 12:7 Divide the class into two cooperative learning groups. Have the groups participate in a relay as students identify pattern symbols. Instruct students to continue practicing pattern symbol identification by the relay method until all students are able to identify and define the pattern symbols.

TS 12:8 Ask volunteers to prepare a display illustrating pattern symbols. Have students include a brief description about each pattern symbol in the display.[B]

TS 12:9 Ask each student to select a pattern piece and identify the symbols. Near the name of each symbol, have students write the purpose of the symbol. Ask students to work in pairs to check for correct identification of the symbols found on the pattern pieces.[B]

Pattern Guide Sheet

TS 12:10 Display Teaching Aid 105, Pattern Guide Sheet. Lead a class discussion to help students define the term *pattern guide sheet.* Point out that the pattern guide sheet contains general information, cutting layouts, and sewing directions. KEY QUESTIONS: What is the main purpose of a pattern guide sheet? How can a pattern guide sheet aid experienced sewers?

TS 12:11 Lead students to brainstorm to identify the information found on a pattern guide sheet. KEY QUESTIONS: How do pattern guide sheets differ? Why should pattern guide sheets be examined carefully before construction begins?

TS 12:12 Lead a class discussion to help students define *cutting layout.* Provide students with pattern guide sheets. Have students compare the cutting layouts on the pattern guide sheets. Instruct each student to write a statement about each cutting layout that identifies specific differences. Ask students to share their statements with the class.[B]

TS 12:13 Instruct each student to identify the cutting layout to be used in the construction of a class project. Have each student write a paragraph describing reasons for selecting the layout. KEY QUESTIONS: Why should cutting layouts be carefully examined? What changes can be made when a cutting layout is not identified for the pattern size, fabric width, and view selected?[B]

TS 12:14 Write or project the term *sewing directions* on a board or screen. Have selected students orally state a definition for sewing directions. Lead a class discussion about sewing directions included in pattern envelopes. KEY QUESTIONS: What are the advantages of having sewing directions included in the pattern envelope? disadvantages? Why should sewing directions be studied carefully before construction begins?

COORDINATION OF PATTERN AND FABRIC

TS 12:15 Lead a class discussion on the coordination of patterns and fabric. Emphasize that fabric characteristics such as texture and weight help determine if a fabric is appropriate for use with a specific pattern. KEY QUESTIONS: What is the relationship between a quality made garment and the selection of pattern and fabric? What characteristics should fabric have if it is to be used for women's formal wear? men's business suits? leisure wear?

TS 12:16 Display several examples of fabrics with large designs. Ask students to look through commercial pattern books and list the patterns that would not be suitable for use with these fabrics. Instruct students to write recommendations for the use of large-patterned fabrics and striped and plaid fabrics. Have students share recommendations with the class. KEY QUESTION: What problems occur when fabrics with large prints are used with detailed patterns?[B]

Preparation of Fabric

TS 12:17 Lead a class discussion on methods of preparing fabric before pinning of patterns and cutting. KEY QUESTIONS: What steps must be completed before pinning the pattern on the fabric? How does the preparation of fabric affect the outcome of a completed garment?

TS 12:18 Have students read from several references to determine definitions for the following terms related to preparation of fabric: *preshrinking*, *straightening*, *bias*, and *true bias*. Instruct students to record definitions and be prepared to discuss them in class.[B]

TS 12:19 Lead a class discussion about preshrinking fabric. Demonstrate methods of preshrinking fabric. Have students review Teaching Aid 106, Preshrinking Fabric. Direct students as they prepare their fabric for construction. If a department laundry is not available, assign students to preshrink fabric at home. Make recommendations about the methods of preshrinking most appropriate for fabrics to be used with class projects. KEY QUESTIONS: Why should fabric be preshrunk? What methods may be used to preshrink fabric? How can one determine if a fabric must be preshrunk?

TS 12:20 Lead students to brainstorm to identify items other than fabric that should be preshrunk before sewing. KEY QUESTIONS: Why should trims be preshrunk before sewing? zippers? linings? interfacing? What factors should be considered when making a decision to preshrink notions?

TS 12:21 Lead a class discussion about the purpose of straightening fabric before placing pattern pieces. Emphasize that fabric is on-grain when the lengthwise yarns and crosswise yarns are at perfect right angles. A fabric is off-grain if the lengthwise yarns and crosswise yarns do not lie at right angles. KEY QUESTIONS: How can the right side of fabric be determined? What is the definition of grain? Can the grain of most fabrics be straightened? Why? What is the difference in on-grain fabrics and off-grain fabrics? How can the grain of fabric be checked before the fabric is purchased? Why is grain important?

TS 12:22 Demonstrate the procedure for determining bias and true bias. Lead a class discussion about garments that are cut on a true bias. KEY QUESTIONS: What garments would be most attractive if cut on a true bias? What fabrics are best suited for a bias cut?

TS 12:23 Display Teaching Aid 107, Steps for Tearing Fabric. Lead a class discussion about straighten the edges of fabric by tearing. Demonstrate how the edges of fabric can be straightened by tearing. Emphasize that tearing should be done carefully because some fabrics may snag, stretch, or be pulled off-grain. Direct students as they straighten the edges of fabric to be used for class projects. KEY QUESTIONS: What are the benefits of tearing fabric? What fabrics are most suitable for tearing?

TS 12:24 Lead a class discussion about straightening the edges of fabric by pulling a crosswise yarn. Demonstrate how to straighten the edges of fabric by pulling a crosswise yarn. Emphasize that when a crosswise yarn is pulled and removed, a mark is left on the fabric for cutting. Direct students as they straighten the edges of fabric to be used for class projects. KEY QUESTIONS: How does pulling a crosswise yarn compare to the tearing method of straightening the edges of fabric? Which method should be used for soft fabrics such as crepes and chiffons? Why?

TS 12:25 Demonstrate how to check the grain of fabric and how to straighten off-grain fabric by pulling. Provide students with samples of fabric. Have students select partners. Have each student check the grain of his or her partner's fabric. Ask each student to make the appropriate adjustments to his or her fabric if it is not on-grain. KEY QUESTIONS: How effective is the pulling method of straightening grain? How many times can this method be used on the same piece of fabric without causing damage? What steps should be taken if the grain of a fabric cannot be straightened?

Pattern Layout and Cutting

TS 12:26 Have students read from several resources to determine definitions for the following terms associated with pattern layout and cutting: *layout*, *folding fabric*, *pattern layouts for special fabrics*, *pinning*, and *cutting*. Instruct students to record definitions and be prepared to discuss the terms in class.[B]

TS 12:27 Lead a class discussion about using the pattern guide sheet when laying out a pattern. Emphasize that the directions on the pattern guide sheet should be followed closely so pattern pieces fit on the fabric easily. Direct students as they select pattern layouts appropriate for selected views of class projects. Ask each student to circle his or her pattern layout choice on the pattern guide sheet.

TS 12:28 Lead students to brainstorm to identify the supplies needed for layout and pinning of patterns. KEY QUESTIONS: Why should supplies be assembled before a pattern is laid out? How can having supplies organized help with time management?

TS 12:29 Lead a class discussion about the correct procedures for folding fabric. Include in the discussion an explanation for crosswise fold, lengthwise fold, partial fold, and double fold. Emphasize that fabric should be folded correctly in order for the garment pieces to fit as shown on the pattern guide sheet. Direct students in folding fabric according to the cutting layouts on pattern guide sheets. KEY QUESTIONS: Why should fabric be folded as shown on the pattern guide sheet? What are the advantages of folding the right sides of the fabric toward the center?

TS 12:30 Lead a class discussion about pattern layouts for special fabrics. Emphasize that napped fabrics and fabrics with one-way designs must be cut with the design or nap running the same direction on all pieces. KEY QUESTIONS: Do napped fabrics or one-way designs require the customer to purchase more fabric yardage? Why? What difficulties can occur when a sewer uses napped fabrics or one-way designs?

TS 12:31 Lead a class discussion demonstrating the correct methods for placing pattern pieces on plaid, striped, and geometric fabrics. Have students refer to Table 12.1 in the *Apparel and Textiles Production, Management, and Services Reference Book* for additional information.

TS 12:32 Divide the class into cooperative learning groups. Assign each group one of the pattern layouts shown on Table 12.1 in the *Apparel and Textiles Production, Management, and Services Reference Book*. Pattern layouts are included for the following types of fabric:

- border prints
- directional prints
- napped fabric
- even plaid fabric
- uneven plaid fabric
- evenly striped fabric
- unevenly striped fabric

Have each group find fabric remnants that match the characteristics stated in the table and demonstrate the correct placement of pattern pieces. Ask students to orally explain the procedures they have selected. In addition, explain how to place pattern pieces on printed fabric and border prints that are complementary and used in the same garment.[B]

TS 12:33 Demonstrate how to pin a pattern to fabric and cut out a garment. Emphasize that pinning the fabric around the edges, once on-grain, will keep it straight. Direct students as they pin edges of fabric.

TS 12:34 Lead a class discussion about preparing pattern pieces for placement. Emphasize that pattern pieces must be taken out of the envelope and tissue trimmed away from the cutting line. KEY QUESTIONS: How are pattern pieces placed on fabric? Why? How close can pattern pieces be placed to one another on the fabric?

TS 12:35 Demonstrate the procedure for placing pattern pieces marked with the grain line marking. Emphasize the importance of keeping the pattern pieces on-grain. Display Teaching Aid 108, Pinning Pattern Pieces, as students place and pin pattern pieces on fabric. KEY QUESTIONS: Why is it important to follow specific procedures when pinning pattern pieces with grain line markings? Why should pattern pieces be counted and checked against the pattern guide sheet once pinning is completed?[B]

TS 12:36 Lead a class discussion on the correct procedures to follow when cutting fabric. Direct students as they cut pattern pieces and fabric. KEY QUESTIONS: What recommendations can be made for cutting fabric? When should pattern pieces be removed from cut fabric pieces? Why should cutting arrows illustrated in the seam lines of each pattern piece be followed? Why should long even strokes be used when cutting? How should notches be cut?

Marking

TS 12:37 Lead a class discussion to define the following terms related to marking: *tracing wheel, dressmaker's carbon paper, tailor's chalk,* and *tailor's tacks*. KEY QUESTIONS: When is a tracing wheel used to mark fabric? dressmaker's carbon paper? tailor's chalk? tailor's tacks? Which is the most preferred method of marking? Why?

TS 12:38 Demonstrate the correct procedures for marking fabric. During the demonstration, lead a class discussion regarding steps to follow and reasons for using each technique. KEY QUESTIONS: How can pattern markings be transferred to fabric? How important is accuracy in transferring markings? What methods are recommended for the fabrics being used in class? Do all marking tools work equally well on all fabrics? Why? How can one avoid the permanent markings of carbon on some fabrics? What marking methods are appropriate for class projects?

TS 12:39 Have each student select a partner and demonstrate the correct procedures for marking fabric using one of the following methods: tracing wheel and dressmaker's carbon paper, tailor's chalk, and tailor's tacks. Ask students to prepare audiovisuals to accompany the demonstrations. Have students conduct the demonstrations for the class and be prepared to answer questions.[B]

TS 12:40 Tour a department store that employs a tailor. Have the tailor demonstrate the correct procedures for using tailor's chalk and tailor's tacks. Guide students in preparing written questions prior to the field trip. KEY QUESTIONS: What are the advantages of using tailor's chalk? disadvantages? When are tailor's tacks used in apparel construction? What recommendations can be made when using tailor's tacks for marking?[B]

BASIC CONSTRUCTION TECHNIQUES

TS 12:41 Review the basic construction techniques explained in Chapter Nine of the *Apparel and Textiles Production, Management, and Services Reference Book.* Ask a volunteer to write or project the following techniques on a board or screen: backstitching, basting, corners, darts, fasteners, hand stitches, inserts, pleats and tucks, points, seams, seam finishes, staystitching, topstitching, and understitching. Lead students to brainstorm to list other construction techniques. If students need help in thinking of more techniques, suggest that they examine the garments they are wearing and think about how the garments were constructed. KEY QUESTIONS: What basic construction techniques are used in constructing most garments? What basic construction techniques could be considered decorative as much as structural?[B]

TS 12:42 Assign each student one or more basic construction techniques to research and present to the class. Students' presentations should include visual aids. Presentations should be brief, explaining the purpose of the technique and its importance to the overall look and feel of a garment.[B]

TS 12:43 Have each student select a pattern and fabric to use in constructing a garment for an individual class project. Have students construct the garments during class using the basic construction techniques described in Chapter Nine of the *Apparel and Textiles Production, Management, and Services Reference Book.* Evaluate the completed garments using Teaching Aid 109, Construction Project Evaluation.

Facings

TS 12:44 Show students an example of a fitted facing and a self-facing and ask them to determine if any of the clothing they are wearing has either type of facing. Lead students to brainstorm and list garments that are best suited for self-facings, those that are best suited for fitted facings, and those that do not need facings.

TS 12:45 Show students Teaching Aid 110, Facings, to illustrate fitted facings and self-facings. Once students understand the types of facings, use the illustrations on the teaching aid as flashcards and have students practice identifying facings. Using the face of a teacher or movie star in the stack of flashcards may add some humor to this exercise.

TS 12:46 Demonstrate the correct procedures for constructing and attaching a fitted facing. Once the demonstration is complete, have students construct fitted facings and attach them to sample bodices or to the garments they are constructing for their class projects, following the instructions on the pattern guide sheet.

Interfacing

TS 12:47 Display examples of various types of interfacing used in garments. Write or project on a board or screen the different areas of a garment that may require interfacing. Have students check the garments they are wearing to find the interfacing. Ask students who have interfacing in any of the areas listed to stand. Have a contest and award a prize to the student whose clothing contains the most interfacing.

TS 12:48 Demonstrate the effect that interfacing has on different types of fabric by draping fabric swatches over different types of interfacing. Ask students to explain if the fabric and interfacing are compatible. KEY QUESTIONS: Why is it important to consider the care instructions when selecting interfacing? What is the general rule for selecting the correct interfacing for a garment?

TS 12:49 Demonstrate the procedures for attaching both fusible and non-fusible interfacing to pattern pieces cut out of various fabrics. Have students attach the correct types of interfacing to the sample pattern pieces or the garments they are constructing in class.

Linings

TS 12:50 Show students examples of clothing constructed with and without linings. Ask students to determine, without touching, which garments are fully lined, partially lined, and not lined. Lead a class discussion on what benefits a lined garment has and when it is inappropriate to line a garment.

TS 12:51 Have students look through magazines and pattern books and find pictures of garments that are lined and garments that are not lined. Once the lined garments are selected, have students determine if the linings should be attached or free-hanging. Have students use the selected pictures to design displays on lined and unlined garments.

TS 12:52 Have students read references about attaching linings to garments. Demonstrate the procedures for constructing a free-hanging lining and an attached lining. Describe the differences between the two types of linings. Have students whose class projects require linings to complete the lining portion of their garments, following the instructions on the pattern guide sheets. Students without lined garments may be grouped together and instructed to observe as the lining procedures are completed by classmates.[B]

Seams

TS 12:53 Review the term seam and describe the difference between a gathered seam and an eased seam. Demonstrate the procedure for gathering a seam. Have each student gather a piece of fabric and stitch it onto a smaller piece of fabric. Have students whose class projects require gathering to complete the gathering process, following the instructions on the pattern guide sheet.

TS 12:54 Demonstrate the process of easing seams around curved areas. Ask students to list, on paper, the curved areas of a garment that may need to be eased. Have each student ease a piece of fabric onto a smaller piece of fabric. Have students whose class projects require easing to complete the easing process, following the instructions on the pattern guide sheet.[B]

Casings

TS 12:55 Define the following terms for students: *casings*, *self-casing*, and *applied casing*. Have students examine the garments they are wearing and identify casings. Ask volunteers to stand and describe the type of casings included in their garments.[C]

TS 12:56 Have students examine the clothes in their closets at home and the clothes of a sibling or parent of the opposite sex and determine how many garments have casings and what type of casing is most prevalent. Students should also note if casings are found more frequently in certain types of clothing such as business wear or sportswear. Have each student write a report on the findings of the research and present the findings to the class.[B]

TS 12:57 Demonstrate the procedures for constructing an applied casing and a self-casing. Construct one casing with a drawstring and one with elastic. Have each student sew an applied casing or a self-casing, pulling elastic or a drawstring through the casing. Have students whose class projects require casings to complete the casings, following the instructions on the pattern guide sheets.

Hems

TS 12:58 Divide the class into cooperative learning groups and have each group practice marking different types of hems with different marking tools. Place several garments on forms or have students model the garments to be marked. After each group completes marking the hem to the specified length, judge the markings for accuracy. Ask volunteers to remove the hem markings and have the groups rotate so they mark all of the garments and use all of the available marking tools. Suggestions for garments to be marked are as follows: a pair of men's pants, a full length formal, a skirt, and a jacket. If both forms and live models are used for this teaching strategy, ask students to consider the differences of marking the hem of a garment worn by a live model versus a garment on a form.[B]

TS 12:59 Have students debate the issue of working with live models or forms when hemming garments. Have the debate teams interview professional sewers about their opinions and views on the subject. Each team should prepare a written list of the advantages and disadvantages of using live models and forms and be prepared to defend their position when the debate begins.[B]

TS 12:60 Show an audiovisual on the proper way to mark and stitch hemlines on garments. KEY QUESTIONS: Why is it important to let a garment hang before marking the hem? What types of fabrics and/or garments are best suited to fusing a hem rather than stitching? When is it appropriate for hem stitches to show on the outside of a garment?

TS 12:61 Review the different types of seam finishes that can be used to finish hems. Refer to Chapter Nine of the *Apparel and Textiles Production, Management, and Services Reference Book.* Have students practice the seam finishes on different types of fabrics. Instruct students to prepare a display of their seam finishes, labeling each. Display students' work in the classroom.[B]

TS 12:62 Review the different types of stitches that can be used to attach a hem to a garment. Refer to Chapter Nine of the *Apparel and Textiles Production, Management, and Services Reference Book.* Have students practice sewing hems on different types of fabrics. Instruct each student to prepare a display of the completed hems, labeling each. Display students' work in the classroom.[B]

TS 12:63 Have students examine the hemlines of their garments. Arrange the class in a circle and play a game to help students identify different hems and hem finishes. Students may be asked to take into account all of the hems on all of the clothing they are wearing or to select a single hemline when playing the game. The student with the most varied assortment of hems and hem finishes listed wins a prize. Ask students if their hemlines have the following characteristics:

- a hem finished with seam tape
- a fused hem
- a hem attached by machine that does not show on the outside of the garment
- a zigzag seam finish
- a hem attached by hand
- a topstitched hem

As each hemline characteristic is named, ask students whose hemlines have that characteristic to stand, raise their hands, stand on one leg, hold their noses, place a hand on a neighbor's shoulder, or close their eyes.

TS 12:64 Demonstrate the procedures for hemming a garment, including measuring, marking, and finishing a hem. If students are ready to complete their class projects by attaching hems, have them do so.

Collars

TS 12:65 Describe different types of collars. Use Teaching Aid 130, Collars and Necklines, to help students recognize different types of collars. Select only the collars, not the necklines, and have students place each collar shown in one of the following categories: flat collar, standing collar, shirt collar, or rolled collar. Have students also classify the collars on their own garments.

TS 12:66 Demonstrate the basic procedure used to construct most collars. Have students whose class projects require collars to complete the collars, following the instructions on the pattern guide sheets. Have students whose class projects do not have collars construct mock collars. Have each student present his or her collar to the class, explaining what type of collar was constructed and one important point to remember when constructing a collar.

TS 12:67 Demonstrate the basic procedure used to attach a collar to a garment. Demonstrate procedures for attaching collars with neck facings and attaching collars without neck facings. Have students whose class projects require collars attach the collars, following the instructions on the pattern guide sheet. Have students whose class projects do not have collars attach mock collars to necklines.

TS 12:68 Show an audiovisual of the procedures for constructing and attaching collars. Have students write papers summarizing the difficulties one might encounter when working with collars.[B]

Sleeves

TS 12:69 Write or project the following sleeve types on a board or screen: kimono, raglan, and set-in. Have each student determine what type of sleeve the classmate to the right is wearing and write or project his or her name on the board or screen below the correct sleeve type. Students may agree or disagree with the decisions made by placing check marks next to the names or writing the classmates names under different sleeve types. Lead a class discussion on any sleeve types that are disagreed upon.[B]

TS 12:70 Demonstrate the procedure for constructing a kimono sleeve. Have students construct kimono sleeves. Display the completed sleeves in the classroom. KEY QUESTIONS: Where is the most stress in a kimono sleeve? How is this stress relieved?

TS 12:71 Demonstrate the procedure for sewing a raglan sleeve. Have students construct raglan sleeves. Display the completed sleeves in the classroom. KEY QUESTION: What shaping device is used to help the raglan sleeve fit over the curve of the shoulder?

TS 12:72 Demonstrate the procedure for sewing a set-in sleeve. Have students construct set-in sleeves. Display the completed sleeves in the classroom. KEY QUESTIONS: Why is the set-in sleeve more difficult to construct than other types of sleeves? Which part of a smooth set-in sleeve is usually larger and must be eased?

TS 12:73 Show students pictures of set-in sleeves that do not fit properly. Ask students to record what is wrong with each sleeve such as length, the armseye, or the overall fit of the sleeve. Once the problems are identified, have students describe what caused the sleeves to fit poorly and how the fit can be corrected.[B]

TS 12:74 Have students whose class projects include sleeves complete the sleeves, following the instructions on the pattern guide sheets. If students have sleeves that require cuffs, a demonstration of how to sew cuffs may be necessary.

TS 12:75 Ask students to examine the sleeve finishes on their garments. Ask several volunteers to describe their sleeve finishes to the class. Have students imagine changing the lengths of their sleeves. Ask students how they feel their garments would look if the sleeve lengths were changed drastically.

Waistbands

TS 12:76 Bring examples of different styles of waistbands to class and lead a class discussion about waistbands. Define the terms *underlap* and *overlap* and show examples of each. Have students identify the types of waistbands on their garments.

TS 12:77 Demonstrate the procedure for constructing and attaching a waistband. Have students whose class projects include waistbands complete the waistbands, following the instructions on the pattern guide sheets. Have students whose projects do not have waistbands construct and attach mock waistbands to mock skirts.

Buttonholes

TS 12:78 Write or project the following words on a board or screen: bound buttonhole, machine-worked buttonhole, worked buttonhole, and hand-worked buttonhole. Ask students to think of different words to define the types of buttonholes and take turns writing or projecting the descriptive terms on the board or screen. Once students have described the buttonholes, have them draw pictures on paper of each type of buttonhole. Students should use the descriptive terms to guide their illustrations. Ask volunteers to present their drawings to the class.[B][C]

TS 12:79 Show Teaching Aid 111, Machine-Worked Buttonholes, along with a buttonhole attachment and describe the manual and machine methods of making buttonholes. KEY QUESTIONS: Are buttonhole attachments always required when making machine-worked buttonholes? Why? Why is it important to make a test buttonhole? How should buttonholes be treated after they are machine stitched?

TS 12:80 Divide the class into cooperative learning groups and have each group read from a different sewing machine manual about constructing buttonholes. Have each group elect a leader and present their information to the class. The groups may use the actual sewing machine, if available, or diagrams of the sewing machine for the presentation.[B][C]

TS 12:81 Demonstrate the procedures for sewing a machine-worked buttonhole and a hand-worked buttonhole. Have students make a series of buttonholes with the sewing machine and by hand. If students have buttonholes on their class projects, have them complete the buttonholes after making several practice buttonholes. Display the samples of buttonholes in the classroom.

Pockets

TS 12:82 Instruct students to record the total number of pockets on the garments they are wearing and write a description of each pocket. Have students turn in their papers with their names on them. Divide the class into pairs. Ask each student to look at his or her partner's garments and locate all of the pockets, without speaking or touching. Each student should write down how many and what type of pockets his or her partner is wearing. Read aloud each student's name from the papers that were turned in and ask the person who is paired with that student to tell the class how many pockets the person is wearing. Students who identify the correct number of pockets on their partners' clothing are declared the winners. To be more challenging, require both students in a pair to provide correct descriptions.[B][C]

TS 12:83 Demonstrate the procedures for constructing a patch pocket, a seam pocket, an all-in-one seam pocket, and a separate seam pocket. Have students construct each of these types of pockets and mount and label the pockets on displays. If students' class projects require pockets, have them complete the pockets, following the instructions on the pattern guide sheets.[B]

Zippers

TS 12:84 Review the terms related to zippers and types of zippers from Chapter Nine of the *Apparel and Textiles Production, Management, and Services Reference Book*. Show students garments that have the following types of zippers and applications: centered zipper, lapped zipper, fly-front zipper, separating zipper, and invisible zipper. KEY QUESTIONS: Which types of zippers are considered conventional zippers? How does the application of conventional zippers differ? How do separating and invisible zipper applications differ from conventional zipper applications?

TS 12:85 Show students pictures of different types of garments and have them determine what type of zipper would be best for each garment. Pictures can be mounted on cardboard and used as flashcards. As a challenge, have students explain why each type of zipper is the best choice. Also show pictures of garments that should not have zippers, such as a swimsuit or an infant's play suit, and have students explain why these garments do not have zippers. Examples of pictures to use are as follows: ski jacket, evening gown made of sheer fabric, blue jeans, child's dress, and cardigan sweater.

TS 12:86 Divide the class into cooperative learning groups and assign each group one of the following zipper applications: centered zipper, lapped zipper, fly-front zipper, separating zipper, and invisible zipper. Assign each group a portion of the class period to teach the class how to apply the assigned type of zipper. The teaching presentations should be as creative, informative, and interesting as possible, and the entire class should be able to successfully apply each type of zipper after the presentations are complete.[C]

TS 12:87 Demonstrate the application procedures for the following types of zippers: centered zipper, lapped zipper, fly-front zipper, separating zipper, and invisible zipper. If students have zippers on their class projects, have them follow the instructions on their pattern guide sheets and apply the zippers.[B]

UNIT CONSTRUCTION

TS 12:88 Lead students to brainstorm for reasons the unit method of construction is an efficient method of construction. Ask a student to write or project the ideas on a board or screen. Ask students who have never used the unit method of construction to tell the class the advantages of using the unit method of construction when sewing. KEY QUESTIONS: What are the basic garment units for women? for men?[B]

Fitting During Unit Construction

TS 12:89 Show an audiovisual on the techniques of fitting a garment during the construction phase. Lead a class discussion on instances in which a garment was made for someone and there were too few or no fittings done during the construction of the garment. Ask students to write paragraphs on the problems that occur when there are too few or no fittings and why fittings are so important.[B]

TS 12:90 Divide the class into three cooperative learning groups and assign one group to demonstrate a first fitting, one group to demonstrate a second fitting, and one group to demonstrate a third fitting. Instruct the groups to use forms and demonstrate the fittings using either correct or incorrect procedures. While students watch each group's demonstration, they should list the procedures and note whether they were done correctly or incorrectly. When the demonstrations are completed, review the procedures and lead a class discussion on which ones were portrayed inaccurately and have students identify the correct methods for completing the procedures.[B][C]

13

Garment Alterations: Fitting

ESSENTIAL ELEMENT

- Describe considerations for fitting garments.(q5A and q9A)

OBJECTIVES TO ACHIEVE

- Identify the characteristics of good fit in garments for women and men.
- Determine common fitting problems for women's garments including problems with length of garments.
- Describe common fitting problems for men's garments including problems with length of garments.
- Compare basic techniques used to mark garments when fitting.

ASSIGNMENT

- Read Chapter Thirteen in the *Apparel and Textiles Production, Management, and Services Reference Book.*

GARMENT FIT

TS 13:1* Find several garments that fit available forms or mannequins poorly and display them. Have students examine the garments closely, recording fit problems on paper. Encourage students to work independently. After students have critiqued the garments, ask volunteers to identify fit problems. As each fit problem is identified, ask the student to explain how the garment would look if it fit correctly. For example, if the armseye seam is too tight, the student should explain that the armseye seam should be 1/2" to 1" below the armpit.[B]

TS 13:2 Make flashcards using Teaching Aid 112, Characteristics of Good Fit. Divide the class into two cooperative learning groups and lead a flashcard relay. Ask each student to state the characteristics of good fit for the area of the garment listed on the flashcard.

* TS 13:1 indicates teaching strategy, chapter 13, number 1.
[B] = Basic Skill Reinforcement
[C] = Common Essential Element

Grain Line

TS 13:3 Bring eight to ten examples of garments constructed both off-grain and on-grain. Ask students to describe the garments in detail and list them in off-grain and on-grain categories on paper. Encourage students to be creative in their descriptions. Allow the student with the largest number of descriptions for each garment to tell the class why that particular garment is on-grain or off-grain.[B]

TS 13:4 Ask students to think about clothes they have seen that may have been constructed off-grain. Ask students to describe how each garment hangs on the person's body and how it looks in general. KEY QUESTIONS: How did the garment become off-grain? How can the garment be altered so it will fit better? How can one avoid purchasing another garment that fits poorly because it is off-grain?

TS 13:5 Provide samples of off-grain and on-grain fabrics for students to examine. Have student volunteers determine the directions of the lengthwise and crosswise yarns of each fabric sample by comparing them to a straight edged surface such as a table or desk top. Ask the student volunteers to determine if the lengthwise and crosswise yarns are perpendicular to determine if each fabric sample is on-grain or off-grain. KEY QUESTIONS: What does perpendicular mean? Which fabrics are on-grain and which fabrics are off-grain? What problems might result if the off-grain fabrics are used to construct garments? How can the off-grain fabrics be corrected so they are on-grain?[B]

Bias

TS 13:6 Ask each student to bring a compass and ruler to class or have several in the class for students to use. Review the term *bias*. Give each student a large sample of fabric that has a selvage. Have each student measure a 45° angle from the selvaged corner of their fabric with a compass and draw a line with a fabric marker or tailor's chalk along the true bias of the fabric. Each student should then stretch the fabric along the marked line and measure the maximum amount of stretch in the fabric. Have students record the amount of stretch. Instruct each student to draw lines on the fabric at a 20° angle and a 60° angle and compare the amount of stretch along these lines to the amount of stretch the fabric has on the true bias. Students should also record these calculations. Ask several students to show the true bias of their fabrics to the class and identify the amount of stretch they found at different angles.[B]

Checking for Fit

TS 13:7 Place sample garments on mannequins or forms. Mannequins with arms and legs work best for this activity. Pin the garments so that horizontal wrinkles and vertical folds are exaggerated and made evident to students. Have students describe the fit problems and take turns correcting the problems with pins. When describing the fit problems of the garment that fits too tightly, have students place pins along the areas that should be let out.

Fittings to Avoid

TS 13:8 Provide swatches of fabrics that would cause garments to be difficult or impossible to alter. Mix in some fabrics that would not cause garments to be difficult to alter. Have students sit in a circle. Give each student a fabric swatch and have him or her write on a piece of paper what the fabric is and if it can be altered successfully or not. Have students pass the swatches around until everyone has identified several swatches but not all of them. Have students put their pens and papers away. Conduct a verbal musical chairs game with the swatches, having one more swatch than the number of students. The student that has more than one swatch when the music stops must describe his or her swatches and tell why the fabrics can or cannot be altered easily. If the answers are correct the student may stay in the game; if the answers are incorrect the student must leave the circle taking one swatch. Continue the game until all swatches have been correctly identified or there is one person left in the circle.[B]

TS 13:9 Have students read the case study in Teaching Aid 113, Difficult Fittings, and record their solutions to the problems.[B][C]

MEASURING FOR GARMENT FIT

TS 13:10 Show students different examples of personal measurement charts. An example of a personal measurement chart can be found in Chapter Ten of the *Apparel and Textiles Production, Management, and Services Reference Book.* Ask each student to develop a version of the personal measurement chart and use it when measuring five people. Family members and friends of various sizes and figure types should be measured. Have students keep a file of personal measurement charts to use when doing alteration activities in Chapter Fourteen.

TS 13:11 Using Teaching Aid 95, Taking Body Measurements, ask students what additional areas of the body should be measured for the female, male, and child's figure. KEY QUESTIONS: Why are males and females measured differently? Why is it important to take the measurements of children more often than adults?

FITTING PROBLEMS FOR WOMEN'S GARMENTS

Dresses

TS 13:12 Display a dress with a waistline that closely fits an available form or mannequin. Ask students to identify the waistline of the dress and decide if it fits properly. Lead students to brainstorm for different styles of dresses and the possible fit problems that may occur with those styles. KEY QUESTIONS: What part or area of a dress is unique to a dress? Explain why the dress bodice and the dress skirt are altered using the alteration procedures for blouses and skirts.

Blouses

TS 13:13 Lead a class discussion on the different parts of the bodice and the correct ways the bodice should fit the body. Have students list possible fit problems for all of the areas of a bodice. KEY QUESTIONS: Why is it important that the bodice fit the body as closely as possible? Why are the neck and shoulder areas of particular concern to a well-fitting garment?[B]

TS 13:14 Have students keep a log of fit problems they notice on other people's bodices, blouses, and shirts. Remind students this is not an exercise in criticism, but simply an exercise to recognize fit problems. This log can be used again in the next chapter on alterations. After a week of studying other people's garments, have each class member write a short paper about one particular fit problem they noticed more often or about a particularly well-fitting garment and the image the garment projected.[B]

Skirts

TS 13:15 Lead students to brainstorm for ways that skirts can be uncomfortable and fit poorly. Ask for volunteers who are wearing skirts to model their well-fitting skirts to the class. Ask each volunteer to tell the class why the skirt fits well and is comfortable to wear.

Slacks

TS 13:16 Lead a class discussion on the proper way a pair of slacks should fit the female figure. Have students list as many fit problems as they can for a woman's pair of slacks. KEY QUESTIONS: Why is it important to understand how slacks should fit? Why do different styles of pants fit the figure differently? Why do some students have a different idea about the way their slacks should fit from the way their parents or guardians believe they should fit?

FITTING PROBLEMS FOR MEN'S GARMENTS

TS 13:17 Lead a class discussion on the differences in fitting men's clothing and women's clothing. KEY QUESTIONS: How can men develop their own sense of style within their wardrobes? Why is it important that men consider the fit, fabric, color, texture, and silhouette of their garments?

TS 13:18 Have students interview several different males of different ages. Use Teaching Aid 114, Men's Clothing Considerations, to provide guidelines for students' interviews. Ask students to report their most interesting findings to the class. Direct student volunteers to create a graph of data about men of different ages. Have students indicate how men's clothing considerations change as they age and what characteristics are common to men of specific ages.

Jackets

TS 13:19 Show pictures of different styles of men's jackets to the class, and ask them to record the different areas where fit problems may occur. KEY QUESTIONS: What is the most important area of fit on a man's jacket? How are men's jackets sized?

Pants

TS 13:20 Contrast fit problems of men's pants and women's slacks through an illustrated lecture. KEY QUESTION: How are men's and women's pants sized differently?

Shirts

TS 13:21 Write or project on a board or screen the different types of men's shirts, and have students determine what fit problems might occur in the different styles. KEY QUESTIONS: Why can men usually buy shirts without trying them on? How are men's shirts sized?

LENGTHENING AND SHORTENING GARMENTS

TS 13:22 Have students decide on a definition for the term *hem*. Ask several students to stand so their garments can be viewed by the class. Ask students to determine how many different hems are on the garments and where the hems are located. Have students note the difference in length of the garments. KEY QUESTIONS: Why is a hem an important part of a garment? At what point during the alteration procedure does the alterationist hem a garment?

TS 13:23 Bring examples of hems that have been released from fabrics that show the old hemlines. Examples include a velvet skirt, leather pants, and an Ultrasuede jacket. Have students examine these problem fabrics and ask them to list any additional fabrics that would be difficult to lengthen or shorten.

TS 13:24 Ask students who have lengthened or shortened a garment to describe the results. Ask if any student feels particularly skilled at hemming and how he or she developed hemming skills. Lead a class discussion about the difficult aspects of hemming, asking students to share any particular problems they have encountered.

MARKING GARMENTS FOR ALTERATION

TS 13:25 Lead a class discussion to help students define *pin fitting, thread markings, tailor's chalk, tailor's wax, hem gauge, sleeve gauge*, and *clip marking*. Provide tailor's chalk; tailor's wax; supplies such as pins, needles and thread, scissors, hem and sleeve gauges; and fabric so that students can view the marking supplies and perform marking activities. KEY QUESTIONS: Which is the best method of marking men's suits? Why should pin markings not be used for projects that require a large amount of time and much handling?

TS 13:26 Provide sample garments that students may mark. Divide the class into teams and conduct a relay based on accuracy rather than speed. A specific time limit should be set during which all marking should be completed. Each team should have samples to mark and may choose to work individually or as a team. Students should mark the garments so an alterationist could understand instructions easily. If additional or written instructions are necessary to communicate clearly, students should write the instructions in addition to marking the garments. The following list includes ideas for alterations students may mark:

- Mark a new hemline on a skirt 2" above the original hemline.
- Remove 1" of fullness from the abdomen area of a skirt.
- Take the waistline of a skirt in 1".
- Shorten both sleeves of a blouse by 3/4".
- Lengthen the hem of a blouse as much as possible.
- Remove the excess fullness from the back neckline of a blouse.
- Take in 2" of excess fullness in the seat of a man's pair of pants.
- Lengthen the hem of a man's pair of pants by 1".
- Shorten the hems of both sleeves on a man's sports jacket by 3/4".

The relay instructions may be adapted for the available garments used. The winning team should be determined by the teacher and each marking should be judged on accuracy and clarity.

TS 13:27 Arrange for students to tour a retail apparel store and view a fitter fitting one or more garments. Instruct students to observe the type of garment(s) being altered, the amount of time spent marking, the tools being used, and any other pertinent information. Have students write brief paragraphs on their observations.[B]

TS 13:28 Show pictures or provide examples of several garments that have been marked poorly and damaged by the marking technique used. Have students determine what was done incorrectly and explain the proper way to mark the garment.

14

Garment Alterations: Adjustments

ESSENTIAL ELEMENT

- Demonstrate garment adjustments following alteration markings.(q5B and q9B)

OBJECTIVES TO ACHIEVE

- Interpret alteration tags and symbols used to mark garments.
- Analyze procedures for altering waistlines and hip lines of dresses.
- Demonstrate procedures for altering necklines and shoulders of blouses and shirts.
- Apply techniques for altering bodices and sleeves.
- Identify procedures for altering the waistlines and hip lines of skirts.
- Apply alteration procedures to adjust the fit of pants and slacks.
- Interpret the alteration procedures for jackets.
- Demonstrate the process of lengthening and shortening garments.
- Summarize general procedures for altering children's garments.

ASSIGNMENT

- Read Chapter Fourteen in the *Apparel and Textiles Production, Management, and Services Reference Book.*

TS 14:1* Invite a professional alterationist to speak to the class about his or her career. Ask the alterationist to discuss the need for new, young alterationists in the field, the salaries and benefits available to an alterationist, and why he or she chose the profession.[C]

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* TS 14:1 indicates teaching strategy, chapter 14, number 1.
[B] = Basic Skill Reinforcement
[C] = Common Essential Element

TS 14:2 Lead students on a field trip to tour an alterationist's work area. Have one of the alterationists or a supervisor conduct a brief tour of the work area, explaining the functions of the equipment and the duties of the employees. Have students take notes on the organization of the work area, the cleanliness of the work area, and the overall attitude of the employees. If possible, also arrange for tours to alteration work areas in different types of businesses such as a commercial dry cleaners and a department store.[B][C]

TS 14:3 Lead a class discussion on students' observations during the field trip. If more than one work area is toured, have students write a report to compare and contrast the different businesses. If only one area is toured, have students write a report on recommendations for improvements and summarizing efficient methods, techniques, and work arrangements observed.[B][C]

ALTERATION TAGS AND MARKINGS

TS 14:4 Lead students to brainstorm for different types of alteration problems. After a list of alterations is developed, provide each student with a copy of Teaching Aid 115, Alteration Tags. Have each student complete one alteration tag to describe an alteration problem listed earlier.[B]

TS 14:5 Bring enough examples of actual alteration tags to class so that each student has a tag. Ask students to write brief descriptions of their tags, noting the most important information on each tag and any important information that is missing. Have students attach the alterations tags to their papers. Explain how important it is that the tag and corresponding paper not be separated just as the tag and a garment to be altered should not be separated at a business.[B]

TS 14:6 Display Teaching Aid 116, Alteration Symbols, and review the meanings of the commonly used alteration symbols. Ask students to think of other symbols that might be helpful in performing alterations. Ask student volunteers to draw their original symbols for the class and explain their meanings. Enccurage students to ask questions of each volunteer if a symbol or alteration is unclear, emphasizing that communication is a vital part of an alterationist's job.

TS 14:7 Using Teaching Aid 116, Alteration Symbols, make flashcards of the various alteration symbols, adding new symbols suggested by students. Have students explain what each symbol means as it is shown.

TS 14:8 Divide the class into two teams and play a Jeopardy type activity with the alteration symbols. Describe an alteration procedure and have students determine the appropriate symbol for the procedure and draw the symbol. Keep score and determine the winner by the correct number of symbols each team draws.

TS 14:9 Ask four students to role play the parts of an alterationist, a customer, a salesperson and fitter, and a narrator. Use Teaching Aid 117, Alterations for Ms. Twiddle, as a script. Emphasize the importance of clear and precise communication in alteration transactions. After the role play, lead a class discussion about problems that occurred in the role play and why the problems happened. KEY QUESTIONS: What are the consequences of poor communication in performing an alteration procedure? How can the store get Ms. Twiddle back as a customer?

GENERAL ALTERATION PROCEDURES

TS 14:10 Lead students to brainstorm for some of the general procedures used in altering garments. Write or project students' ideas on a board or screen. Lead a class discussion on the reasons each statement is important.

TS 14:11 Provide a sample of a lined garment and ask students to describe what would result if only the outer portion of the garment is altered without altering the lining. Allow students to examine the lining closely to determine if any part of the lining should be altered differently than the garment. KEY QUESTION: Why does it require more time to alter a lined garment than an unlined garment?

DRESS ALTERATIONS

Lowering the Waistline

TS 14:12 Ask students if they have ever seen someone wear a dress with a waistline that is too short? Ask students to propose how a garment with a short waistline would feel. Describe the procedures for lowering the waistline of a garment using Teaching Aid 118, Lowering a Waistline.

TS 14:13 Display a dress on an available form or mannequin and ask students to examine the waistline of the dress. Lead a class discussion on the fit of the waistline. KEY QUESTIONS: Is the waistline of the dress lying on the natural waistline of the form or mannequin? If not, where should the waistline of the dress fall and what steps are necessary to adjust the waistline?

Raising the Waistline

TS 14:14 Ask students to determine if they are either short or long waisted. Have a student volunteer explain what being short and long waisted means. Explain procedures for raising the waistline of a garment.

Increasing the Waistline

TS 14:15 Have students think about garments they have worn with waistlines that are too tight. Lead a class discussion on procedures for increasing a garment's waistline to maximize comfort. KEY QUESTION: What adjustments must be made when increasing the waistline of a garment that has a zipper?

TS 14:16 Have students take notes regarding waistlines of garments on people they see in the park, at the airport, at church, at the mall, and in other public settings. Students should keep a record of the waistlines that appear too tight, those that appear too loose, and those people who appear to be comfortable with the waistlines of their garments. It may also be interesting for students to categorize the people into male and female groups. Have each student write a paper on the results and implications of the study. Have student volunteers share their observations with the class and compare their findings based on the demographics of the group of people observed.[B]

Decreasing the Waistline

TS 14:17 Show pictures or slides of dresses that are too loose around the waist and dresses that fit the waistline well. Have students identify the garments that fit well and the garments that are too loose. Ask for one student to describe the correct procedures for decreasing fullness at the waistline. KEY QUESTION: Why is excess fullness at the waistline often overlooked by customers?

Increasing the Hip Line

TS 14:18 Display a dress without a waistline seam on an available form or mannequin. Pin the dress so it is too tight in the hips and the bodice has excess folds of fabric around the waistline and abdomen area. Ask students to identify the fit problem and how it can be altered.

BLOUSE AND SHIRT ALTERATIONS

Neckline Alterations

TS 14:19 Show slides of different neckline styles and lead a class discussion about why the neckline area is so important to the overall look of a garment. KEY QUESTIONS: What are some of the most common problems of a poor fitting neckline? Why is it difficult to alter the necklines of garments with zippers?

TS 14:20 Ask students to define the term *shrink out*. Demonstrate the correct procedure for shrinking out excess fullness on a curved neckline. Have students practice shrinking out fullness on different types of garments.

TS 14:21 Demonstrate the correct procedure for lowering the neckline of a garment. Show students how to cut a new facing for the neckline and have them cut new facings for different necklines.

TS 14:22 Divide the class into teams of two or three students. Assign each team a neckline alteration problem and provide a sample garment for each team to fit. Each team of students may fit the assigned neckline on a form, a mannequin, or on a person's body. Have students identify the fit problem and correct the problem using the appropriate alteration procedures. Have each team present the altered neckline to the class, describing the problem and how it was corrected.

Shoulder Alterations

TS 14:23 Have students study Teaching Aid 119, Problem Fittings in the Shoulder Area, and identify the alteration procedure to use for each situation described. Have each student list the alteration steps clearly for each situation and trade papers with another student. Have each student read one set of instructions written by another student. Ask students to determine if the instructions are clear and correct.[B][C]

TS 14:24 Display several sizes and shapes of shoulder pads and lead a class discussion on the need for shoulder pads and why some garments have them and some do not. KEY QUESTIONS: When is it better to use shoulder pads to correct a fit problem rather than ripping and re-sewing the garment?

TS 14:25 Have students look through magazines and cut out pictures of garments with different sizes and shapes of shoulder pads and garments without shoulder pads. Divide the class into two teams. Give one team the pictures of garments with shoulder pads and the other team the pictures of garments without shoulder pads. Have each team create a visual display to convince others to wear or not to wear shoulder pads.

Bodice Alterations

TS 14:26 Display the bodice of a garment on an available form or mannequin so that it fits well. Point out different areas of the bodice that can be altered. Pin the same garment so that it appears too tight. Have students make a list of where the fit problems originate and how they affect the fit of the garment. Describe the appropriate procedures for altering the bodice [B]

TS 14:27 Present an illustrated lecture on procedures for altering darts in a bodice. Provide each student with a sample bodice in which to sew darts at the waistline and the armhole following the first set of instructions on Teaching Aid 120, Altering Darts. After completing a sample bodice, have each student trade bodices with another student so that the darts can be altered according to the second set of instructions on Teaching Aid 120.

Sleeve Alterations

TS 14:28 Have each student select a partner. Direct each student to examine the sleeves of the partner and determine if another sleeve length would be more appropriate or possible for the garment. Have two or three pairs of students tell the class the reasons for their decisions. KEY QUESTIONS: Why should the sleeve length be in proportion to the rest of the garment? Why might a customer not notice if a sleeve is too loose?

TS 14:29 Give each student a fabric sample and provide directions for cutting a gusset. Lead a class discussion about when a gusset is necessary and what it does for a garment. Ask students if any of their own clothes have gussets.

TS 14:30 Demonstrate the correct procedures for shortening a sleeve with a cuff. Have students find a shirt or blouse with a cuff that needs to be shortened. Have them perform the alterations at home as an assignment or work on the alterations in class.

SKIRT ALTERATIONS

Increasing the Waistline

TS 14:31 Show slides of the different waistlines of garments and lead a class discussion about why it is important that waistlines of skirts fit well. KEY QUESTIONS: What different types of features do waistlines have? What happens to the fasteners on skirts that are too tight?

Decreasing the Waistline

TS 14:32 After viewing several examples of waistlines that are too loose, have students write down which procedure would be most appropriate for decreasing each waistline. Have student volunteers share their ideas with the class.[B]

Increasing the Hip Line

TS 14:33 Have students watch for skirts that are too tight around the hips while at the mall, the airport, and school. Make notes on how the garments fit the figures and how they could most appropriately be altered. KEY QUESTIONS: Why is it unattractive to wear a skirt that is too tight around the hips? What different areas can be altered to increase the ease at the hip line?

Decreasing the Hip Line

TS 14:34 Ask female students if they have skirts that are too big through the hip area. Lead a class discussion on why this alteration problem is not as common as skirts that are too tight through the hip area. Ask a volunteer to describe the methods for decreasing the fullness around the hip line of a skirt.

SLACKS AND PANTS ALTERATIONS

Increasing Fullness in Crotch

TS 14:35 Demonstrate the correct procedure for lowering the rise of a pair of pants. Review the term *rise* making sure students understand where the rise is located.

TS 14:36 Give a copy of Teaching Aid 121, Crotch Alterations, to each student. Have students use different colors of pencils to draw a new crotch seam that is 1/4" below the original seam, indicate the rise, and draw a new waistline seam that is 1/4" below the old waistline seam. KEY QUESTIONS: How far below the curve of the body should the crotch of a pair of pants fall? Are there any examples of garments for which this rule would not hold true?

Decreasing Fullness in Crotch

TS 14:37 Demonstrate the correct procedure for lowering the rise of a pair of pants. Have students identify where the rise is on a pair of pants or slacks.

JACKET ALTERATIONS

TS 14:38 Divide the class into cooperative learning groups and have them try on different jackets. Tape a large piece of butcher paper to the wall for each group. While each model wears a jacket, a group leader should write on the butcher paper how the jacket fits the model and the group's recommendations for alterations. Some jackets may fit so poorly that the group's recommendation is to buy another jacket and not spend time and effort attempting the alterations necessary for a good fit. After group work is completed, each group should have selected members model the jacket that fits best and the jacket that fits most poorly. Each group's elected leader should explain the fit problems and alteration recommendations to the class.[B][C]

Decreasing Back Neck Fullness

TS 14:39 Show slides or pictures of tailored jackets that fit poorly under the back collar. Explain how to alter the collar and neckline of a jacket so that it fits properly. KEY QUESTIONS: What is the maximum amount of fullness that can be effectively removed with this alteration procedure? What is the easiest method of removing fullness under a collar?

Decreasing Shoulder Width in the Back

TS 14:40 Have students bring jackets from home that are too wide in the back shoulder area. Provide each student a copy of Teaching Aid 122, Decreasing Shoulder Width in Back of a Jacket. Have students follow instructions on the teaching aid to alter each jacket or pin the jacket to demonstrate how it should be altered.

Increasing Fullness in the Abdomen Area

TS 14:41 Lead a class discussion about the fit problems related to the abdomen area of garments and how these fit problems are solved. Ask a student volunteer to provide an illustrated talk on the alteration procedure of moving buttons over to increase fullness in the abdomen area. Explain the process of adding fullness to the abdomen area using 123, Altering Jackets at the Abdomen.

Decreasing Fullness in the Abdomen Area

TS 14:42 Demonstrate the procedure for decreasing fullness in the abdomen area of a jacket or other garment. KEY QUESTIONS: What is the maximum amount of fullness that can be effectively removed with this alteration procedure? Will moving the buttons be an effective method for solving this fit problem if the fullness is not excessive?

LENGTHENING AND SHORTENING GARMENTS

General Guidelines for Lengthening and Shortening

TS 14:43 Lead students to brainstorm for important tips for lengthening and shortening garments. Conduct a role play using two students, one who is the alterationist and one who is the customer. Inform the two students in advance so they can provide props and dress appropriately. The customer should be instructed to exaggerate the negative reactions a customer might have while the alterationist marks and hems the garment. The alterationist should remain calm and treat the customer with respect during the entire role play. Encourage students to improvise.[C]

TS 14:44 Divide the class into cooperative learning groups and have them list guidelines for lengthening and shortening garments. Ask each group's leader to name the most important guideline the group identified, the most difficult guideline for the customer to follow, the most difficult guideline for the alterationist to follow, and the easiest guideline for the alterationist to follow. [B]

Lengthening an Uneven Hemline

TS 14:45 Divide the class into pairs and provide enough sample garments with uneven hemlines so each pair can work on a garment. Demonstrate the procedure for lengthening an uneven hemline and write or project the steps on a board or screen. Have students perform the procedure on their sample garments.

TS 14:46 Show students pictures of uneven hemlines. Have students recognize when an uneven hemline is a design feature or a flaw in construction by responding to the pictures and separating them into the two categories of Design Feature and Flaw in Construction. Have each student sketch a garment with an uneven hemline as a design feature.

Shortening an Uneven Hemline

TS 14:47 When students complete the lengthening procedure described in TS:45 have them trade garments and perform the procedure for shortening an uneven hemline on the sample garments. Trading garments will provide students the opportunity to practice hemming different types of garments and fabrics.

Shortening the Hemline of a Lined Garment

TS 14:48 Provide a sample of a lined garment, preferably a jacket or a coat, and demonstrate the correct procedure for shortening the hemline. KEY QUESTIONS: Why is it important to alter the lining in the same manner as the garment? What areas of a lined garment need special attention during the alteration process? CRITICAL QUESTION: What difficulties are encountered when lengthening and shortening lined garments?

Lengthening the Hemline of a Lined Garment

TS 14:49 Ask students if they are wearing lined garments and if their lined garments could be lengthened. Have volunteers explain why their garments could or could not be lengthened. KEY QUESTION: What is the one factor that determines whether a lined garment can be lengthened?

Shortening the Hemline of a Pleated Garment

TS 14:50 Have students look in catalogs and fashion magazines to find different styles of pleated skirts. Have each student choose a skirt and mark on the picture a new shortened hemline. It is not necessary for students to keep the hemline in proportion to the rest of the garment, but it is important for students to realize that the new hemline may not be the best length for the garment. Lead a class discussion on the amount of marking required for a garment with pleats.

Lengthening the Hemline of a Pleated Garment

TS 14:51 Provide samples of several types of pleated skirts. Divide the class into two teams and have the teams line up on opposite sides of the room. Ask the two students at the head of each line the first questions. When the team member at the head of the line knows the answer, he or she may ring a bell and answer the question. After answering the question correctly, the team member may sit down. The team with all members seated first wins the competition. The following are example questions:

- How can this hemline be successfully lengthened?
- What type of pleats does this skirt have?
- What type of hem finish does this skirt have?
- What type of hem stitch is used on this skirt?

ALTERING CHILDREN'S GARMENTS

TS 14:52 Ask a children's clothing designer, manufacturer, or buyer to speak to the class about the special features included on children's clothes for extending their wearability. Have students prepare questions in advance relating to children's clothing.

TS 14:53 Have students use resource materials and research special features included on children's clothes for extending their wearability. Have students write short reports or present oral reports about wearability features of children's clothing and how useful these features are.

TS 14:54 As a project for FHA/HERO, have students ask child care centers or state children's homes if they have any children's clothes that need to be altered. Altering children's clothes will primarily involve letting out hems and moving buttons.

15

Quality in Apparel and Accessories

ESSENTIAL ELEMENT

- Identify signs of quality in clothing and accessories.(q6B)

OBJECTIVES TO ACHIEVE

- Assess social influences that affect apparel and accessory choices.
- Outline factors to consider when evaluating the quality of apparel and accessories.
- Identify laws that influence the quality of apparel and accessories.
- Determine how consumer rights, consumer responsibilities, and consumer agencies affect the quality of apparel and accessories.

ASSIGNMENT

- Read Chapter Fifteen in the *Apparel and Textiles Production, Management, and Services Reference Book.*

TS 15:1* Invite an accessories buyer or a sales representative from an accessory line to speak to the class. Encourage students to ask questions by having them write the questions on note cards. Ask the speaker to describe his or her job responsibilities and discuss the importance of accessorizing garments.[B]

TS 15:2 Lead a class discussion on the term *accessory*. Have students list the possible meanings the word may have. Narrow down these possibilities by deciding on a class definition for the term *accessory* or *accessories*. Using the class definition, have students write down as many different accessories as possible. Ask a volunteer to read his or her list and allow other students to add other types of accessories to the list.[B]

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* TS 15:1 indicates teaching strategy, chapter 15, number 1.
[B] = Basic Skill Reinforcement
[C] = Common Essential Element

SOCIAL INFLUENCES

TS 15:3 Lead a class discussion on the importance of first impressions. Show slides or other visuals of different people and let students decide what their first impressions are of each person and identify the type of image portrayed. KEY QUESTION: How can a good first impression be altered to a bad impression? CRITICAL QUESTIONS: What type of first impression do you make? How do you perceive your image?

TS 15:4 Lead the class to brainstorm for different types of lifestyles. Show excepts from the television show Lifestyles of the Rich and Famous or other similar examples and lead a class discussion on the various lifestyles people lead and how apparel and accessories reflect particular lifestyles. KEY QUESTION: What factors are considered when choosing clothing for work or leisure?

TS 15:5 Have students complete Teaching Aid 124, Apparel for Different Lifestyles and for Special Needs. Allow students to share their suggestions for solving the problem situations described in the teaching aid. KEY QUESTIONS: What type of lifestyle did each person described on the teaching aid have? In general, what types of clothing do these people probably wear? How does a family's lifestyle affect family members' clothing choices?

Values, Needs and Wants

TS 15:6 Have students read references and determine a class definition for the terms *values*, *needs*, and *wants*. Have each student project a list of a positive role model's values, needs, and wants. Have students determine which needs are probably met and why people might want certain things.[B]

TS 15:7 Read a news story about someone who is less fortunate or who has been through a particularly rough period in life. Have students evaluate the projected values, needs, and wants of their identified role model in comparison to the person's values, needs and wants described in the news story. Lead a class discussion on the differences in the students' and the less fortunate person's lives. CRITICAL QUESTIONS: How difficult is it to determine the values, needs, and wants of another person? Why is it important for an employee to determine what each customer's values, needs, and wants are when assisting the person?

TS 15:8 Conduct a role play with two students. Have one student act out the part of the customer and the other student act out the part of the employee. The employee should attempt to determine the following facts about the customer without offending or appearing to be too personal:

- what merchandise the customer wants
- what is available to fulfill the needs of the customer
- whether or not the customer can afford the merchandise
- what benefits the customer will receive from the merchandise

Have other students judge the role play and determine if the information the employee determined was sufficient in order to assist the customer.

TS 15:9 Have students who have worked for retail businesses describe ways they have determined how to assist customers. Ask students to explain if they feel it is more difficult to work in some retail areas or departments than others. KEY QUESTIONS: What type of customer is the easiest to please? the most difficult?

GUIDELINES TO QUALITY

TS 15:10 Display examples of accessories and apparel that vary in quality. Ask students to identify in writing whether an item is high, medium, or low quality. Lead a class discussion on the differing opinions on the quality of the accessories and how people form opinions regarding quality. KEY QUESTIONS: Why is low price not always a sign of low quality? Why should an employee understand the concept of high, medium, and low quality?[B]

TS 15:11 Provide students with copies of Tables 15.1 and 15.2 from the *Apparel and Textiles Production, Management, and Services Reference Book*, pages 288 and 289. Have students shop in several different types of stores. The apparel and accessories should be examined, and Teaching Aid 125, Evaluating the Quality of Apparel and Accessories, should be completed. Obtain approval of the store managers before students begin their evaluations. Have students write papers on the advantages and disadvantages of the different levels of merchandise quality.[B]

Evaluating Quality

TS 15:12 Have students read about or lead a class discussion regarding daily and seasonal care of clothing. Divide the class into cooperative learning groups and have each group make daily clothing care plans for a teenager who wants to be well-groomed. Some groups may choose to make plans for seasonal care of clothing. Display group reports in the classroom. KEY QUESTIONS: How does daily or seasonal care extend the life of apparel and accessories? Why is it important to have a plan for seasonal care?[B]

TS 15:13 Direct students to read labels and hang tags on different garments in a store. Students should complete Teaching Aid 126, Cost of Caring for a Garment, to determine how much it would cost to care for each garment over the lifetime of the garment. Point out that since some garments are laundered at home, the cost of laundering per wash should be estimated. Suggest a realistic cost for home laundering per wash and average costs for dry cleaning different types of garments. Remind students that they should estimate how often each garment requires laundering or cleaning based on how frequently the garment is worn. Have each student write a paper describing why certain garments are poor investments and others are wise investments. An alternative approach to this activity is to have students read garment descriptions in clothing catalogs and complete the teaching aid.[B]

TS 15:14 Ask each student to bring a garment from home that is not comfortable and explain to the class why it was purchased, why it is not comfortable, and what his or her plans are for the garment. Ask students if they have ever had garments that were worn enough that they could not be restored to a wearable condition. KEY QUESTIONS:

Did the pioneers who settled this country have the option of acquiring new clothes as frequently as we do? What happened to the clothes these pioneers wore?

CONSUMER PROTECTION

Apparel and Textile Laws

TS 15:15 Have each student design an original label for a line of clothing or accessories. The label should include the information that is needed to care for a particular garment or accessory. Encourage students to be as creative as possible. Have students present their labels to the class and describe the care instructions for the garments.

TS 15:16 Have students collect labels and hang tags from garments they or their family members have purchased. Have student volunteers organize a class file containing the labels and hang tags. KEY QUESTIONS: What types of information appear on different labels? What voluntary information do some manufacturers include on their labels?

TS 15:17 Summarize the 1972 Care Labeling Act and the Wool Products Labeling Act. Have students list as many items as possible that do not require care labels.[B]

TS 15:18 Divide the class into five cooperative learning groups and assign each group one of the acts summarized on pages 291 and 292 of the *Apparel and Textiles Production, Management, and Services Reference Book*. Direct students to research the assigned act and present information to the class. Each presentation should include the history behind the implementation of the act and why the act was necessary.

TS 15:19 Lead a class discussion on furs. Emphasize various origins of furs and that some furs are natural while others or treated. Summarize the Fur Products Labeling Act.[B]

Consumer Rights and Responsibilities

TS 15:20 Obtain a copy of the Consumer Bill of Rights and have students study the document, determining how it relates to their lives as consumers. Ask students if any of them have ever made a poor buying decision, and if so how they handled the situations. CRITICAL QUESTION: How can an employee become aware of consumer rights and help inform consumers of their responsibilities?

TS 15:21 Divide the class into two teams and conduct a debate. One team should argue for the rights of the consumer and the other side should argue for the rights of the business. Give examples of poor, unethical business practices and dishonest, unethical customers on which the teams should base their arguments.

TS 15:22 Lead a class discussion on the rights and responsibilities students would like to have as consumers. Ask students if they have ever written complaint letters and what results came from the letters. Read several different types of complaint letters and ask students to think about how letter writing might solve consumers' problems.

Consumer Agencies

TS 15:24 Instruct students how to write a letter to a consumer agency. Use Teaching Aid 127, Writing a Letter of Complaint, as an example of a letter directed toward a consumer agency. Assign each student an agency and have him or her compose a letter dealing with a consumer problem.[B][C]

TS 15:25 Invite a representative from the Better Business Bureau to speak to the class on the services the agency provides. Ask the representative to tell the class about example cases and how the situations were managed. KEY QUESTIONS: How does a consumer register a complaint with the Better Business Bureau? What type of satisfaction can the customer expect when filing a complaint through the Better Business Bureau? What recourse does a business have if wrongly accused by a customer?

TS 15:26 Instruct each student to investigate an example of a consumer agency in the community. If possible, each student should choose a different agency and research or gather information about the agency. Give each student a copy of Teaching Aid 128, Consumer Agency Summary, for use in conducting research.[B][C]

16

Coordinating Apparel and Accessories

ESSENTIAL ELEMENT

- Illustrate coordination of clothing and accessories for infants, children, or adults.(q6C)

OBJECTIVES TO ACHIEVE

- Identify basic styles of clothing for infants and toddlers.
- Compare basic styles of women's blouses, skirts, and dresses and determine how they affect the coordination of apparel.
- Analyze basic styles of women's coats and jackets and determine how they affect the coordination of apparel.
- Distinguish basic styles of menswear and determine how they affect the coordination of apparel.
- Outline factors to consider when coordinating apparel and accessories.

ASSIGNMENT

- Read Chapter Sixteen in the *Apparel and Textiles Production, Management, and Services Reference Book.*

APPAREL FOR INFANTS AND TODDLERS

TS 16:1* Ask students to reflect on the last time they went shopping and remember the salespeople they encountered. Have students rate the salespeople on a Likert-type scale (assigning values of 1 to 5 with 5 indicating the person performed very well and 1 indicating the person performed very poorly). Have students rate each of the following attributes:

- familiarity with merchandise
- knowledge of color
- knowledge of accessories
- knowledge of apparel

* TS 16:1 indicates teaching strategy, chapter 16, number 1.
[B] = Basic Skill Reinforcement
[C] = Common Essential Element

- helpfulness in coordinating accessories

Students may observe a salesperson helping someone else such as a family member who is shopping. After rating the salespeople, divide the class into cooperative learning groups and ask them to share their experiences and evaluations without indicating names of salespeople or stores. Ask a volunteer from each group to list common elements of the evaluations with the class.

TS 16:2 Lead students to brainstorm for a list of qualities of a good employee for the children's clothing department of a store. Read the biographical sketches in Teaching Aid 129, Hiring Good Salespeople, and have students determine who they would hire to sell children's clothing in their own specialty store. KEY QUESTION: Why should these particular employees understand the needs and growth patterns of children?

Infants

TS 16:3 Divide the class into cooperative learning groups and have each group prepare a layette. The layette can consist of a display of pictures from magazines or actual examples of items in an infant layette, or used infant clothing collected by the students. Each group should identify whether the infant for which the layette was prepared is male or female. Allow each group to make a presentation on why each item was chosen for the layette and the total cost of the layette. If used clothing is chosen for a layette, have students estimate how much the clothing might cost if purchased at a garage sale or resale store.

TS 16:4 Conduct an informal role play with one student as a salesperson and another student as a customer. The customer should be very uninformed about buying infant clothing. Have the actors develop their skit in a way that shows how important it is for the employee to be informed about the store's merchandise.

TS 16:5 Have students read references on infant sleepwear. Bring examples of different types of infant sleepwear to class. Display each item and have students write a description for the item being displayed. After all items have been described, begin with the first item and ask students to read their descriptions.[B]

Toddlers

TS 16:6 Show slides or photographs of toddlers in different types of clothing. Determine if any of the clothing shown is inappropriate for toddlers. Have students write the characteristics of appropriate clothing for toddlers.[B]

TS 16:7 Ask students to bring garments they wore as toddlers or pictures of themselves as toddlers. Each student should describe the clothing shown, why it is appropriate for a toddler, and any special memories of the garment. If the garment is not suitable for a toddler, ask the student to explain why they feel it is not a good garment for toddlers to wear.

WOMEN'S APPAREL

Blouses

TS 16:8 Have students view an audiovisual on different types of sleeves. Lead a class discussion on the different types of sleeves in blouses or shirts. Have several students model for the class and describe the types of sleeves on their garments. Ask students to identify the types of sleeves they consider most comfortable for playing sports, sleeping, doing homework, and performing other types of activities. KEY QUESTION: Why are certain sleeve types appropriate for specific types of garments?

TS 16:9 Lead a class discussion on features of blouses that can easily be worn by handicapped individuals who have limited ability to use traditional fasteners such as buttons. KEY QUESTIONS: What types of fasteners can be used instead of traditional fasteners such as buttons? What other features could be incorporated into the design of blouses for handicapped individuals to make the garments more functional? How much need is there for apparel especially designed for handicapped individuals?

TS 16:10 Display samples of various types of sleeves and have students examine the sleeves. Have students write the distinguishing characteristics of each sleeve type.[B]

TS 16:11 Explain the differences between collars and necklines. Have students examine garments or view pictures of garments and determine if each garment has a collar or a neckline. Ask students to identify types of collars being worn by classmates and how each garment would be changed if it had a neckline without a collar. Ask students who are wearing garments with necklines and no collars to stand and identify the types of necklines on their garments.

TS 16:12 Create a spelling bee type game by dividing the class into two teams and having the teams stand on opposite sides of the classroom. Use Teaching Aid 130, Collars and Necklines, to show students pictures of collars and necklines. For each picture, have one student determine if the picture shows a collar or a neckline. Have another team member identify the type of collar or neckline pictured. If an answer is incorrect the student must be seated. The team with the most members standing at the end of the game is the winning team.

Skirts

TS 16:13 Have students cut out pictures of different styles of skirts from magazines and pattern books and create a visual display. Students should label each picture with the name of the skirt style. Ask students to present their displays to the class.[B]

TS 16:14 Have students read references on different types of skirts and the history of skirts. Instruct students to graph the popularity of certain skirt styles over a period of years. It may be necessary to assign students different periods of time to research. Have students present their graphs to the class, explaining what events in history influenced the type or length of skirts during a particular historical time period.[B]

Dresses

TS 16:15 Show the class an audiovisual on women's dresses. Lead a class discussion on different types of dresses worn by females. Ask female volunteers to describe favorite dresses they wore as children and to explain what made the dresses special to them. KEY QUESTIONS: What types of dresses are currently popular among female teenagers? career/professional women? pregnant women? older women? Why are the same types of dresses not necessarily popular among all groups of women?

TS 16:16 Display pictures of several different styles of dresses and allow students to examine them silently, noting the style differences on paper. Divide the class into cooperative learning groups and provide each group with a picture of one dress style. Each group should discuss their notes on the particular dress style and compile their notes to coordinate a presentation. During each class presentation, the picture of the assigned dress style should be displayed.[B]

Coats and Jackets

TS 16:17 Have students read references and define the following types of coats: balmacaan coat, capecoat or Inverness cloak, chesterfield coat, princess coat, trench coat, and wrap coat. Ask students what styles of coats they prefer. KEY QUESTIONS: What are the differences between a spring coat and a winter coat? What are the differences between a jacket and a coat?[B]

TS 16:18 Show students an audiovisual on the different styles of coats and jackets. Have each student identify various coats and jackets by name on a sheet of paper. Next to the name of each coat or jacket, have students write why the garment was named as it was.[B]

TS 16:19 Invite a manager from a department or specialty store to speak to the class on the different styles of jackets and coats available and the fashion trends that occur with these garments. Have the speaker discuss the longevity of a coat purchase and what is involved in producing a good coat.

TS 16:20 Lead students to brainstorm for the different characteristics of the following jackets: *bolero*, *box*, *Chanel*, *Norfolk*, *pea*, *safari*, and *Windbreaker*. Show examples of these types of jackets, determining which are variations and blends of other jacket styles. KEY QUESTIONS: Which jackets are more likely to be worn as outerwear? Which jackets are more likely to be worn as suits, with coordinating skirts or pants?

TS 16:21 Conduct a debate among students on the controversy over wearing coats made from animal skins. Assign one team to defend one's right to wear coats made of animal skins and the other team to condemn wearing coats made of animal skins. Each team should research the assigned position and be familiar with the other team's position and possible arguments. Have a group of students act as the judges and determine the winning team.[B]

MEN'S APPAREL

TS 16:22 Show students an audiovisual on men's apparel. Lead a class discussion on the differences between women's and men's clothing. CRITICAL QUESTIONS: What events in the future may drastically change the way women and men dress? How will the clothing worn today evolve into clothing that is worn 100 years in the future?

TS 16:23 Lead a class discussion on features of men's garments that cause them to be easily worn by handicapped individuals who have limited ability to use traditional fasteners such as buttons and zippers. KEY QUESTIONS: What types of fasteners can be used instead of traditional fasteners such as buttons and zippers? What other features could be incorporated into the design of garments for handicapped men in order to make the garments more functional? How much need is there for apparel especially designed for handicapped individuals?

Suits, Jackets, and Pants

TS 16:24 Assign each student one of the following terms: *suit, two-piece suit, three-piece suit, American cut suit, European cut suit, single-breasted suit, double-breasted suit, sports jacket*, and *blazer*. Instruct each student to read references and research the history and fashion trends related to the assigned term. Have each student write a paper and make a presentation to the class on interesting facts learned about the assigned term.[B]

TS 16:25 Display several different styles of jackets and allow students to examine them silently, noting the differences on paper. Divide the class into cooperative learning groups and provide each group with one jacket. Each group should discuss their notes on the particular jacket and compile their notes to coordinate a presentation. During the class presentations, each jacket may be modeled by a student, placed on a form or mannequin, or displayed in some other unique manner. The presentation should include descriptions of the jacket, fabric, uses, color, type of lapels, and other characteristics.[B]

TS 16:26 Lead a class discussion on the difference between slacks and trousers. Display Teaching Aid 131, Tops and Bottoms, and have students determine what type of pants should be worn with the garments pictured.

Shirts

TS 16:27 Provide swatches of fabric to represent a work shirt, sport shirt, and dress shirt. Ask students to determine which fabrics are suitable for the three different types of shirts and to explain their opinions. KEY QUESTION: How does the fabric used for different types of men's shirts differ from that used for the same type of women's shirts?

TS 16:28 Have students look through magazines and pattern books to locate examples of shirts with the following characteristics: French front, box center pleat, button-down collar, French-style collar, long-point collar, standard collar, tab collar, barrel cuff, and French cuff. Have students mount and label their pictures for a visual display.

TS 16:29 Have students determine what types of fashions men are currently wearing by observing men's clothing. Have students sign up for different areas, times, and dates to observe people and gather the data necessary in order to view a wide variety of men. For example, men viewed Saturday afternoon at the mall will obviously differ in dress from the men at church on Sunday morning. Provide each student with a copy of Teaching Aid 132, People Watching, for use in recording observations.[B]

Coats

TS 16:30 Divide the class into five cooperative learning groups and assign each group a different coat style to research. Each group should prepare for a brief, informal commentary on the coat they were assigned. Each group should select a speaker to commentate. The speakers should meet briefly to plan the commentaries.[B][C]

TS 16:31 Use Teaching Aid 133, Coats for Various Climates, to help students determine the types of coats appropriate for different climates and weather situations in the United States. Use the map of the United States as a transparency and cut out coats included in the teaching aid. Name states and weather situations and have students tell what type of coat would be appropriate for each area or state on the map. An example situation is the following: A businessman in Miami encounters an ice storm during January on his way home from work. What type of coat is the man most likely to own or have with him that would be most appropriate? The student should indicate that the all-weather coat is placed near southern Florida on the map.[B]

COORDINATING APPAREL AND ACCESSORIES

TS 16:32 Review the elements and principles of design discussed in Chapter Eight of the *Apparel and Textiles Production, Management, and Services Reference Book*. Have students read references and agree on a class definition for the term *coordinate*. KEY QUESTION: In addition to the elements and principles of design, what factors should be considered when coordinating apparel and accessories?[B]

Factors to Consider When Coordinating Apparel

TS 16:33 Show students an example of a color wheel and instruct them to create their own color wheels. When the color wheels are completed, have students write definitions and examples of the following color related terms: *monochromatic*, *analogous*, *complementary*, *split complementary*, *double complementary*, *triad*, and *accented neutral*. Supplement information on color by having students view an audiovisual or use a computer software program that reinforces the concepts of using a color wheel and various color schemes.[B]

TS 16:34 Lead a class discussion about coordinating colors with individual skin tones. Have student volunteers participate in a demonstration to illustrate the importance of color in wardrobes. KEY QUESTION: Why is it important for salespeople to understand color and what influences the appearance of color?

TS 16:35 Display examples of apparel and accessories of different textures. Have students coordinate the apparel and accessories based on texture only. Instruct students not to concern themselves with color but with textures and how well they complement or contrast with one another. Ask each student to demonstrate the coordination of one ensemble by dressing a form or mannequin and explaining why each choice was made.[B]

TS 16:36 Divide the class into cooperative learning groups. Instruct the groups to determine at least four different ensembles that could be coordinated and worn from the clothing the group members are wearing. Have each group determine at least four other ensembles that are not well coordinated. Have each group elect a leader to report results of group work to the class. Have each group stand in front of the class while the leader describes the coordinated and uncoordinated ensembles to the class.[C]

TS 16:37 Review the terms *weight* and *hand* and the reasons these terms are important concepts for an employee in the apparel industry to understand. Divide the class into cooperative learning groups, giving each group several fabric samples and a blindfold. Each student should have a chance to wear a blindfold and describe to the rest of the group the weight and hand of a fabric sample. Be sure students understand the difference between texture, weight, and hand.

Factors to Consider When Coordinating Accessories

TS 16:38 Invite an accessories specialist or manager to speak to the class about how to accessorize men's, women's, and children's apparel. Encourage students to ask questions about professional advise on accessorizing. Ask the speaker in advance to advise students regarding their accessory problems.

TS 16:39 Show students an audiovisual on how to select and wear men's, women's, and children's accessories. Ask several students to help demonstrate some of the techniques shown in the audiovisual or provide explanations about the techniques learned.

TS 16:40 Lead students to brainstorm for a list of different types of accessories available to the consumer and the price ranges of the accessories. KEY QUESTIONS: Do both men and women have the same amount and variety of accessories from which to choose? What are some characteristics of children's accessories? CRITICAL QUESTION: Why do men, women, and children enjoy wearing accessories?[B]

TS 16:41 Have students identify what types of accessories are appropriate for each apparel item by filling in the blanks on Teaching Aid 134, Accessorizing Apparel. Students may list as many items as desired to accessorize each garment well.[B]

TS 16:42 Lead a class discussion on how too many accessories may overpower a person. Have each student list on a sheet of paper different types of accessories and ornamentation that may be worn or displayed on the body. This list may include elaborate hair styles, colored fingernail polish, wildly printed fabric, heavy make-up, and other examples. Have students compile their lists to form a class list. Lead a class discussion on how to determine how many accessories can be worn tastefully. Have the class set definite standards for what they believe constitutes too much accessorizing, moderate accessorizing, adequate accessorizing, and too little accessorizing. Teaching Aid 135, The Accessory Rating Game, may be helpful in rating accessories. [B]

TS 16:43 Have students use Teaching Aid 135, The Accessory Rating Game, to rate people in different places and at different times. Have students research at least ten different people and write a paper on the trends of accessorizing from the results of the research.[B]

17

Marketing: Promotions and Special Events

ESSENTIAL ELEMENT

- Apply marketing techniques when assisting with promotions and special events.(q7A)

OBJECTIVES TO ACHIEVE

- Explain various considerations involved in marketing products and services to customers.
- Relate ways in which advertising may be used in fashion promotion.
- Describe how public relations and publicity are used in fashion promotion.
- Discuss various types of special events used in marketing fashion products and services.
- Outline personal selling techniques that contribute to successful marketing of products and services.

ASSIGNMENT

- Read Chapter Seventeen in the *Apparel and Textiles Production, Management, and Services Reference Book.*

TS 17:1* Review the terms *fashion* and *fashion industries* with students. Have students read references to define the term *fashion business*. Have each student write a brief paragraph describing the differences between fashion industries and fashion businesses.[B]

TS 17:2 Invite several people who work in fashion businesses to serve as panel members or speak to the class about their job responsibilities and positions. Examples of possible panel members include a department store or specialty store manager, a merchandise manager, a merchandiser, a fashion illustrator, a fashion writer for a newspaper, and a personal shopper. Prior to the presentation, explain the positions held by selected panel members. Have each student prepare questions on note cards for a guest that is employed in an area of particular interest.[B]

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* TS 17:1 indicates teaching strategy, chapter 17, number 1.
[B] = Basic Skill Reinforcement
[C] = Common Essential Element

TS 17:3 Have students research various references to gather definitions of *marketing* and *merchandising*. Lead a class discussion allowing students to compile a class definition for both terms. KEY QUESTIONS: Based on the class definition, what activities are involved in the marketing process? the merchandising process? How can consumers' behavior be predicted?[B]

TS 17:4 Have students read references to define the following terms: *fashion journalist*, *fashion writer*, *fashion illustrator*, *fashion trend researcher*, and *fashion advertiser*. Ask students to locate the name of a person who holds each of the identified fashion communications jobs. For example, Helen Gurley Brown is a fashion journalist.[B]

MARKETING CONSIDERATIONS

Market Segmentation

TS 17:5 Write or project the names of several different products across the top of a board or screen. Product names might include diapers, diamonds, dungarees, stuffed animals, and ties. Lead students to brainstorm for the types of consumers who might buy each item listed and write the appropriate consumer groups' names under each product name. Explain that each group listsed under a product name would be a target market for that particular product.

TS 17:6 Have students write a list of all the demographic characteristics that might be studied to determine a target market. When the characteristics are listed, ask students to make a chart similar to the example in Teaching Aid 136, Demographic Chart. Have students interview members of their families and friends and fill in their demographic chart. Divide the class into cooperative learning groups and have the groups compile all of their charts and determine the different market segments identified.[B]

TS 17:7 Have students write a list of all the psychographic characteristics that might be studied to determine a target market. When the characteristics are listed, ask students to make a chart similar to the example in Teaching Aid 136, Demographic Chart. Have students interview members of their families and friends and fill in their psychographic chart. Divide the class into cooperative learning groups and have the groups compile all of their charts and determine the different market segments identified.[B]

TS 17:8 Have students arrange to interview a business owner or manager about the psychographics and demographics of their customers. Give students suggestions of who to interview, but have students make contacts to set up actual interviews. After the interviews are completed, have students write papers on the information gained during the interviews and thank you letters to the business owners or managers.[B]

TS 17:9 Lead students to brainstorm for a list of various products sold in the marketplace currently. Lead a class discussion on various marketing techniques appropriate for different products listed. KEY QUESTIONS: Which marketing technique(s) would be most effective in selling each product? Why? How do businesses determine which marketing techniques they should use? Why is marketing an important aspect of selling a product? How can businesses learn better ways to market their products?

Economic Factors

TS 17:10 Explain the term *consumer income* and the different ways in which it is measured. Have students complete Teaching Aid 137, Estimating Future Income, to determine their future incomes. Lead a class discussion on how students calculated the figures they place on the teaching aid. KEY QUESTION: How does fashion growth relate to consumer income? CRITICAL QUESTION: Why is discretionary income so important in this culture, and why is it usually considered too low?[B]

TS 17:11 Lead a class discussion on the terms *inflation* and *recession* and how they relate to students' daily lives. Ask students to bring articles from newspapers or magazines regarding the current financial status of the economy. Have students describe incidents in their lives that have been directly influenced by inflation or recession.[B]

Population

TS 17:12 Lead a class discussion on how the population influences fashion demand. Divide the population into several age groups. Ask students to determine what they believe each group's fashion interests, needs, and reactions are currently. KEY QUESTION: What was considered fashionable when students' parents were in high school?

TS 17:13 Have students go to the library and research the population of several different countries. Research should include information on the growth trends and birth rates in each country. Have each student write a paper on the effect a population has on the fashion trends of a country. Papers should include comparisons and contrasts of the population characteristics, lifestyles, and fashions of each country.[B]

Sociological Factors

TS 17:14 Write or project the term *leisure time* on a board or screen. Ask students to make a list of activities they participate in during their leisure time. Then ask students to make a list of their mother's, father's, grandmother's, grandfather's, and/or older brother's or sister's leisure activities. Have a student record the activities for the class under each heading. Assign each student to one of the identified leisure time activities and have students find pictures of appropriate clothing for the activities. Student volunteers may create a visual display describing what they have learned [B]

TS 17:15 Divide the class into cooperative learning groups and assign each group a particular ethnic group to research. Have the groups determine the fashion influences of each assigned ethnic group on culture in the United States of America. Have the groups make oral presentations to the class, using visual aids. This project may be done as a FHA/HERO project and presented as a program during a special event.[B]

TS 17:16 Present an audiovisual on various ethnic groups' contributions to fashion and culture in the United States of America. Lead a class discussion on the contributions of various ethnic groups to fashion. KEY QUESTIONS: Why is the United States often referred to as a melting pot or a mosaic society? What different ethnic groups have immigrated to the United States throughout history? How have these groups influenced culture in the United States? How have these groups influenced fashion in the United States?

FASHION PROMOTION

TS 17:17 Divide the class into cooperative learning groups and have each group invent or design a new fashion product or service. Direct each group to plan an entire promotional history of the product. The group should work together outside of class in developing a class presentation. The presentation should introduce the product, persuade customers to buy the product, and motivate customers to continue buying the product. Creativity should be stressed.[B][C]

TS 17:18 Ask each student to select a product that is either new to consumers, currently accepted and popular, or no longer of interest to consumers. Have students cut advertisements for their products from magazines and newspapers. Each student should make a visual display of the life cycle of the selected product and tell the class what is currently being done to promote the product.

TS 17:19 Show students Teaching Aid 138, Levels of Promotion in the Fashion Industry, and explain the differences between the three levels of the fashion industry. KEY QUESTIONS: Who or what is the most important level of the fashion industry? What types of promotional activities are most likely associated with each of the different levels of the fashion industry?

TS 17:20 Assign each student a part for a role play or have students select parts identified on pieces of paper in a container. Have students role play the multi-step process of marketing a product from the raw material to the consumer. For example, one student should portray the raw fiber and research the different fibers or material that he or she can portray. Have the student portraying the raw fiber announce the selected fiber name several days before the role play so that other students can read references about the marketing processes they are to illustrate. Each student should role play or illustrate in a creative way the promotional processes needed to market the product. Direct students to use information in Figure 17.1, page 325, of the *Apparel and Textiles Production, Management, and Services Reference Book* as a reminder of the multi-step marketing process on which this teaching strategy is based.

TS 17:21 Invite the marketing director for a mall to speak to the class on the various types of promotional activities in which the mall is involved. Ask the speaker to tell about his or her background and how he or she secured the position as a marketing director.

Advertising

TS 17:22 Invite the advertising director of an advertising agency to speak to the class on the ways advertising agencies aid retailers. Ask the speaker to bring sample advertisements of different types, (television, radio, and print) prepared by the agency and discuss the effectiveness of each advertisement.

TS 17:23 Have each student select a store and/or a specific area or department of a store. Each student should track the store's or department's advertisements for a four-week period. All print advertisements should be cut out and visual displays should be organized in a creative manner. Other media used for advertising including radio and television advertisements should be noted and the advertisements should be summarized in writing. Have students check each advertisement for errors, clarity, overall customer appeal, and other considerations. Each advertisement should be rated according to its effectiveness. Students should present their ad reports to the class and critique the promotional planning of the selected department or store based on their research.[B]

TS 17:24 List the common characteristics of a successful advertisement using a board or screen. Show students samples of excellent and poor advertising. Ask students to describe what is wrong with the poor advertisements. Have students name example advertisements they like and advertisements they dislike. Lead a class discussion on the reasons for the different opinions regarding advertisements.

TS 17:25 Have student volunteers whose families own video cassette recorders and televisions to record a variety of television advertisements for different types of products and services. Review the advertisements and select appropriate advertisements to play for the class. Have students identify whether each advertisement is an example of product or institutional advertising and determine how professional and effective each advertisement is.

TS 17:26 Refer students to the products they invented while completing Teaching Strategy 17:17. Lead a class discussion on whether or not the students would consider changing any of their advertisement plans. KEY QUESTION: Why do certain products lend themselves to one particular type of advertising?

Public Relations

TS 17:27 Lead a class discussion on the images of different businesses. Ask students to name businesses that have positive images and to identify why these businesses have projected positive images. Ask students to identify businesses that have negative images and to identify what has contributed to these images. Have students make suggestions on how businesses with negative images can make changes. KEY QUESTION: How can a business' public relations affect the image projected to the public?[C]

Publicity

TS 17:28 Ask students to look through newspapers for a week and find articles that publicize a business either negatively or positively. For each article found students should answer the following questions:

- Did the business pay the newspaper to print the article?
- Will the article encourage or discourage customers to patronize the business?
- Why was the article written and printed in the newspaper?

Each student should attach articles to a sheet of paper, answer the questions in writing, and make additional comments as desired. The articles may be compiled into a reference book on publicity.[B][C]

TS 17:29 Conduct a role play with one student playing a business owner and another student playing a newspaper editor. Have the two students provide background for the role play including the size of the business and the newspaper, the gender of the actors, and any additional information necessary. The business owner should try to convince the newspaper editor to run a feature story on the front page of the Sunday paper about his or her business. Students may read references and interview business owners and newspaper editors in order to effectively perform the role play.[B][C]

TS 17:30 Videotape several segments of a news program during which persons are interviewed about an upcoming event. The event should be one to which the public is invited such as a fund raiser for a charitable cause or the grand opening of a business. When students have viewed the videotape, ask them to critique the program, determining what the businesses hoped to gain from the publicity and the degree of success they experienced.

TS 17:31 Have each student write a press release for the product invented by their group in Teaching Strategy 17:17. Use Teaching Aid 139, Sample Press Release, to instruct students on the necessary components of a press release.[B][C]

Special Events

TS 17:32 Arrange a field trip to a special event sponsored by a mall or a store. Have students make notes on the types of people attending, the intended purpose of the event, and whether or not the event appeared to be successful.[B]

TS 17:33 Divide the class into the same cooperative learning groups as in Teaching Strategy 17:17 and have group members prepare a mock demonstration or special event to promote their product or service. As an elected leader from each group presents group work, have other students grade the demonstration or special event by rating whether they would or would not purchase the product and writing reasons for each rating.[B]

TS 17:34 Divide the class into cooperative learning groups and have each group research the components of a fashion show. The group should identify workers needed to plan a fashion show. Show students Teaching Aid 140, Planning a Fashion Show, to help them remember all of the planning and preparation necessary for a successful fashion show.[C]

TS 17:35 Arrange for the class to tour a store that is having a trunk show. Lead a class discussion comparing the trunk show method of selling to regular stock selling of merchandise. CRITICAL QUESTIONS: Who profits most from a trunk show – the retailer, manufacturer, or customer? Why?

Visual Merchandising

TS 17:36 Define the terms *visual merchandising* and *display* and ask each student to write a brief paragraph about a display he or she has seen recently. Each student's paragraph should describe the location of the display, identify the product(s) or service(s) being sold, and assess if the display was effective and attractive.[B]

TS 17:37 Have each student select an article from a periodical or other resource material such as *Advertising Age* that relates to some form of visual merchandising. Students should read their selected articles and write brief reports summarizing the articles. Have each student share an oral presentation with the class summarizing the article read. Trade journals and other related resources may be obtained by contacting buyers and store managers.

Personal Selling

TS 17:38 Show an audiovisual on selling techniques. Ask students if any of them have viewed something similar when training for a new job. Have each student write a paragraph about any changes he or she would make to the audiovisual. KEY QUESTIONS: How effective are these types of educational tools in training a person to sell? What additional training methods could be used with new sales personnel?[B]

TS 17:39 Lead students to brainstorm for characteristics of a good salesperson and why the salesperson is important to a retail business. Ask students who have worked in sales to share experiences with the class. CRITICAL QUESTION: Why are salespeople paid relatively low wages if they are so important to a successful retail business?

TS 17:40 Conduct a debate on the value of personalized service/selling versus the economic advantages of self-service. Encourage students to share their opinions regarding each type of selling from a consumer's standpoint.

TS 17:41 Invite a salesperson from a store to tell the class some of their experiences related to selling. Have the person tell how he or she become a sales employee Have students prepare questions on note cards prior to the presentation.[B]

TS 17:42 Have students role play various sales techniques outlined on page 330 of the *Apparel and Textiles Production, Management, and Services Reference Book.* Have the class analyze each sales technique in terms of its effectiveness in selling merchandise and gaining customer satisfaction.

18

Visual Merchandising

ESSENTIAL ELEMENT

- Prepare fashion displays.(q7B)

OBJECTIVES TO ACHIEVE

- Identify jobs available in display.
- Discuss major types of window displays, responsibilities related to window displays, types of windows, and components used in window displays.
- Review the major types of interior displays and their uses.
- Analyze ways in which design elements are used in the creation of displays.
- Determine ways in which design principles are used in the creation of displays.
- Outline the most common display arrangements, how signage is used in displays, and the types of fixtures that are used in displays.

ASSIGNMENT

- Read Chapter Eighteen in the *Apparel and Textiles Production, Management, and Services Reference Book.*

TS 18:1* Lead students to brainstorm for various types of visual merchandising a store may use. Ask students to share opinions regarding the types of visual merchandising that are most appealing to them and what types of merchandising influence their buying decisions.

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* TS 18:1 indicates teaching strategy, chapter 18, number 1.
[B] = Basic Skill Reinforcement
[C] = Common Essential Element

EMPLOYMENT IN DISPLAY

TS 18:2 Invite a visual merchandise director from a store to speak to the class about his or her career and about the future of visual merchandising. Ask the speaker to discuss salary ranges and qualifications needed to be a successful visual merchandiser, how he or she became involved in visual merchandising, and the potential for future job opportunities in visual merchandising. Have each student prepare one question on a note card for the speaker prior to the presentation.

TS 18:3 Have students read the want ads to see what jobs are available in visual merchandising. Students should cut out ads describing opportunities that require skills in visual merchandising and mount the ads on paper. Have students write lists of specific skills and backgrounds the jobs require. Ask student volunteers to read some of their ads to the class and tell the class if they feel each would be a good opportunity. Compile all ads for a classroom file.[B]

WINDOW DISPLAYS

TS 18:4 Have students view an audiovisual on window displays used to merchandise goods. Lead a class discussion on the importance of professional window displays in stores. KEY QUESTIONS: What purpose does a good window display serve? How important is it to change window displays frequently?

TS 18:5 Make arrangements for students to view the preparation of window displays and in-store displays for at least one retail business. Instruct students to write paragraphs describing the process viewed and information learned from the experience. KEY QUESTION: Which display props are the most versatile? CRITICAL QUESTION: How do window displays reinforce marketing promotions?[B]

Types of Window Displays

TS 18:6 Show students pictures or slides of both selling and institutional displays and ask them to compare and contrast the different displays. Students should categorize the pictures as either selling or institutional displays. Have a student volunteer list the different types of displays on the board including the following: single-category, campaign window, single-promotion, special event, sale, line-of-goods, and mass displays. Students should further categorize each of the displays in the pictures or slides.[B]

TS 18:7 Lead a field trip for students to view examples of different window displays. Students should take notes on the different windows viewed. Have students tell what type of display is in each window and describe their general opinions about each display. Have students rank each window from 1 to 5 with 1 representing strongly disagree and 5 representing strongly agree for each of the following attributes:

- ability to sell merchandise
- positive image
- overall appearance

Students should tally up their scores for each window and submit scores to a class scorekeeper. The scorekeeper should average the scores for each window and determine which window has the highest, winning score. Award a blue ribbon to the window display that has the highest score. Ask student volunteers to write a letter to the store manager telling why the class voted the display as the best window display they viewed.[B][C]

Responsibilities Related to Window Displays

TS 18:8 Lead a class discussion on the rotation and departmental methods of assigning responsibilities related to window display preparation. Ask students to consider the viewpoints of a store manager and department manager and decide if one method has more advantages than the other. KEY QUESTIONS: How often should windows be changed. Why? Are there any disadvantages to changing windows frequently? If so, what are they?

Types of Windows

TS 18:9 Have students read references on the different types of windows used in retail businesses. Have each student list the advantages and disadvantages of the three window types on a sheet of paper. Ask a volunteer to read the advantages and disadvantages listed. Ask other students if there are any additional advantages and disadvantages that were not listed.[B]

TS 18:10 Divide the class into three cooperative learning groups and assign each group a type of window including the following: open, closed, and semi-closed. Each group should create a display on paper to demonstrate the assigned type of window. Have each group select a leader to present the project to the class.[C]

Components Used in Window Displays

TS 18:11 Provide each student a copy of Teaching Aid 141, Components of Window Displays. Lead a class discussion to identify different components used when creating a window display. Students should list specific items such as boxes and crates as structural props and mannequins and jewelry forms as functional props.[B]

TS 18:12 Lead a class discussion on the effects of lighting on a display and the safety precautions necessary when using light fixtures. Describe the differences between the terms floodlighting, spotlighting, and pinpointing. KEY QUESTIONS: Why should lighting fixtures not be obvious in a display? How do the colors used in a display affect the amount of light needed?

INTERIOR DISPLAYS

TS 18:13 Have students look for interior displays in different areas of a store. Students should analyze the location of each display. Ask students to determine if the major objectives for a good interior display were met for each display. Each student should write a short paper on the effectiveness of each display observed.[B]

TS 18:14 After reviewing the best places for interior displays, draw several diagrams of store interiors on transparencies. Have students circle the appropriate places on the diagrams for interior displays, and tell the class why each location would be appropriate for an interior display.

Types of Interior Displays

TS 18:15 Show an audiovisual on the different types of interior displays. Lead a class discussion on what types of interior displays students are most familiar with, and which ones are most appealing to them. KEY QUESTION: Why do certain displays affect some people positively and some people negatively?

TS 18:16 Assign each student one of the following types of displays: showcase display, counter display, shadow box, environment display, island display, gondola, platform display, free-standing display unit, hanging display, point-of-purchase (POP) display, self-selection display, and video kiosk. Have each student create a display to present to the class. Students can draw their displays using poster board or other visual display materials.

TS 18:17 Bring examples of POP displays from retail stores to class. Have students list as many different kinds of POP displays as they can, noting how frequently they purchase items from POP displays. KEY QUESTION: What characteristics should a POP display have to be effective in selling merchandise?

USE OF DESIGN ELEMENTS IN DISPLAYS

TS 18:18 Review the elements of design discussed in Chapter Eight of the Apparel and *Textiles Production, Management and Services Reference Book.* Lead a class discussion on how these design elements relate to designing displays as well as apparel. Ask students to describe a display that does not adhere to the elements of design.

TS 18:19 Invite the school art teacher to demonstrate how designs are created with line, shape, space, texture, and color. Give students the opportunity to experiment with the elements to see how they affect displays. KEY QUESTIONS: What illusion is presented by using light colors? How do vertical lines affect the look of a display? Which textures, lines, colors, and shapes make a display appear larger or smaller?

TS 18:20 Secure numerous fabrics and wall and floor coverings of various textures. Pass the samples around the class and have students describe each sample's texture. Ask students to suggest uses for the samples based on the textures. KEY QUESTIONS: How does texture affect the way a fabric or wall or floor covering is used? What special care may be needed for some textured fabrics and wall and floor coverings?

USE OF DESIGN PRINCIPLES IN DISPLAYS

TS 18:21 Review the principles of design discussed in Chapter Eight of the *Apparel and Textiles Production, Management, and Services Reference Book.* Assign each student one of the principles of design and have him or her write a brief paper comparing the use of the assigned design principle in display to its use in apparel design. Compile the papers into a class reference.[B]

TS 18:22 Show slides or pictures of displays and ask students to identify on paper what the emphasis or dominance is in each display and what the focal point is in each display. After students have recorded their ideas for each illustration, show the illustrations a second time and lead a class discussion on the students' ideas related to dominance and focal points.[B]

TS 18:23 Ask students to refer to the projects they completed for Teaching Strategy 18:16 and analyze their displays to determine if the principles of design were applied. Have each student write a paragraph for each principle discussing how it was applied or how it could be applied to the display.[B]

BASIC DISPLAY ARRANGEMENTS

TS 18:24 Use cans of green beans, corn, and tomatoes to show students examples of the following types of display arrangements: single-unit arrangement, repetition, step arrangement, zigzag arrangement, line arrangement, crescent curve, reverse curve, radiation, and pyramid arrangement. KEY QUESTIONS: What types of merchandise can best be displayed in a pyramid arrangement? step arrangement? What types of arrangements are more prevalent in department stores? grocery stores?

TS 18:25 Have students select a display arrangement from slips of paper in a container and ask students to keep the selected arrangement secret. Have each student design a simple display using the type of arrangement chosen. Students may draw their displays or use other creative design methods. Place all displays around the classroom, and have students analyze each display and identify the types of arrangements used. Students should write their answers on paper and not discuss answers with classmates. Ask students to submit papers to be evaluated. If there are questions about certain displays, a discussion may be held so the designer can explain his or her display.[B]

SIGNAGE USED IN DISPLAYS

TS 18:26 Bring examples of different types of signs from department stores to class and lead a class discussion on the importance of signage in retail. Ask students to try to identify the store from which each sign was secured. Ask students who have been employed in retail stores to describe the sign policies of the stores. KEY QUESTIONS: How does a store's signage reflect its overall image? What do you think of a store that uses misleading, deceptive, and/or inaccurate signs? Are there disadvantages to contracting all signage outside of the store? Why do some specialty shops use less signage than larger stores?

TS 18:27 Have students design a sign to place on the display designed in Teaching Strategy 18:16. When signs are completed, place them on a bulletin board or other display area and have students identify which signs go with which display projects.[B]

TS 18:28 Have students make notes on the signage in two different stores. The two stores should carry similar merchandise. Students should address all components of effective signage by writing papers comparing and contrasting the two stores' signage. Students should include opinions about the signage in both stores and any changes that might be made for improvement.[B]

FIXTURES USED IN DISPLAYS

TS 18:29 Use Teaching Aid 142, Identifying Fixtures, to help students identify different types of fixtures. Use the pictures of the fixtures to make flashcards. Conduct a relay type of game by dividing the class into two or three teams and having students name each fixture as quickly as possible. The student who first identifies each fixture should be seated, and the team with all members seated first should be named the winner.

TS 18:30 Have students view as many different types of fixtures as possible in a large store. Have students list the kinds of fixtures, their locations within each department, and the types of merchandise displayed. If there are fixtures students are unable to identify, they may ask a department manager the name of the fixture. Have students report their observations to the class.[B]

TS 18:31 Lead students to brainstorm for types of merchandise that can be displayed on different types of fixtures. As the class is brainstorming, have a student list the different merchandise suggested to be displayed on each fixture type.[B]

TS 18:32 Lead a field trip to a business that sells or manufactures fixtures. Ask a representative of the business to provide a tour of the facility and a brief history of the business. Ask the representative to discuss the newest types of fixtures and techniques for visual merchandising. Encourage students to ask questions relating to what types of fixtures may be available in the future, how old fixtures are recycled, and how a business can update current fixtures. If a field trip is not possible, have students view catalogs or other printed materials that illustrate different types of fixtures.

19

Use and Care of Sewing and Pressing Equipment

ESSENTIAL ELEMENTS

- Demonstrate appropriate use and care of sewing or pressing equipment.(q8B)
- Demonstrate pressing procedures.(q10E)

OBJECTIVES TO ACHIEVE

- Describe types and uses of conventional sewing machines.
- Explain types and uses of industrial sewing machines.
- Contrast the functions of various types of sewing machine attachments.
- Analyze common problems that occur when using sewing machines and the care and maintenance required for sewing machines.
- Identify miscellaneous sewing equipment and tools and their functions.
- Describe different types of pressing equipment and general procedures for use of pressing equipment.

ASSIGNMENT

- Read Chapter Nineteen in the *Apparel and Textiles Production, Management, and Services Reference Book.*

SEWING MACHINES

Types of Conventional Sewing Machines

TS 19:1* Show an audiovisual that explains different types of conventional sewing machines and their uses. Ask students who have sewing machines at home to share information about the machines.

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* TS 19:1 indicates teaching strategy, chapter 19, number 1.
[B] = Basic Skill Reinforcement
[C] = Common Essential Element

TS 19:2 Demonstrate the different stitches that conventional sewing machines are designed to sew. Give students scraps of fabric and have them practice sewing different types of stitches. Students may need additional instruction on operating conventional sewing machines before completing this teaching strategy.

Use of Conventional Sewing Machines

TS 19:3 Organize a game of Sewing Machine Pictionary using the following sewing machine parts as words for students to draw:

- head
- bed
- bobbin
- shuttle hook
- throat plate
- thread guides
- tension disks
- tension dial
- bobbin case
- feed

Divide the class into two cooperative learning groups and give the person drawing for each group a term. The teams can draw the same term or different terms. As one team member draws, other team members should attempt to identify the sewing machine part. Keep score by awarding a point to the team that guesses the correct term first. All members of each team should have the opportunity to draw.

TS 19:4 Divide the class into cooperative learning groups and have each group describe as creatively as possible the steps that occur when stitches are formed. The groups may create songs, poems, displays, or a human model demonstrating the stitching process. Have students vote by secret ballot on the best performance.[B]

TS 19:5 Show students examples of different types of throat plates on different sewing machines. Ask students to identify the differences in the throat plates. KEY QUESTIONS: What is the purpose of the lines etched into the throat plate? If there are no lines on the throat plate, how can a seam guide be improvised?

TS 19:6 Lead a class discussion on the importance of tension. Demonstrate how tension that is too loose or too tight affects stitches. Have students locate the tension dial, tension disks, and bobbin tension on different sewing machines and attach labels to identify the parts. As a class, view the tension assembly on each machine and determine if the parts are labeled correctly. KEY QUESTIONS: How can loose tension be tightened? How can tight tension be loosened? How do stitches appear on fabric when tension is too tight? too loose?[B]

TS 19:7 Have students read references and define *tension*. The definitions should include the parts of the sewing machine that regulate tension and problems that occur when tension is too loose or too tight. Ask students if they have ever sewn using improper tension and have them explain how improper tension affected the fabric.[B]

TS 19:8	Show students examples of different lengths of stitches. Demonstrate how to select the correct length of stitch for different fabrics using the stitch regulator. Have students sew on fabric scraps using different stitch lengths. Ask students to explain to the class reasons for choosing particular stitch lengths for different fabrics.
TS 19:9	Have students read references and define the following terms: *feed, pressure, pressure regulator, stitch regulator, stitch width control, needle position control,* and *reverse stitch control.*[B]
TS 19:10	Give students copies of Teaching Aid 143, Identifying the Parts of the Sewing Machine, and ask them to identify the following parts of the sewing machine: *needle bar, presser foot, presser foot lifter, presser foot bar, feed,* and *pressure regulator.*[B]
TS 19:11	Display a variety of sewing machine needles. Include ballpoint, wedge, sharp, twin, and triple needles. Explain the differences in the needles and describe the purpose for which each needle is best suited.
TS 19:12	Have students list the steps that must be followed when inserting a needle into the needle bar. Divide the class into cooperative learning groups and have each group practice inserting needles into sewing machines. Ask students to describe what happens when a needle breaks while sewing. KEY QUESTIONS: Why is it important to tighten the needle clamp screw after inserting the needle? When should a needle be replaced?[B]
TS 19:13	Demonstrate the process of threading a sewing machine. Divide the class into relay teams and have students compete in a machine threading accuracy and speed contest. If only one machine is available, use a stop watch and time students, record their times, and check that the threading procedure is correct. Have each team average its members' scores and award a prize to the team with the best average time. If each team has a machine, members of each team may compete against one another. After each team member competes, a champion can be declared on each team. The team champions can compete for a prize awarded to the winner's team.[B][C]
TS 19:14	Lead a class discussion on bobbins. Demonstrate how to use different types of bobbin winders and how to insert bobbins into different machines. After the demonstration, ask students to identify, on paper, the type of bobbin case each machine has and if the bobbin winder is on the top, front, or side of the machine.[B]
TS 19:15	Have students define the following terms by drawing a diagram of each: *flywheel, handwheel, bobbin, slide plate,* and *bobbin winder.* Ask students to explain the purpose of each part next to the diagrams. KEY QUESTIONS: Why must the bobbin be threaded for the sewing machine to sew stitches? Which type of bobbin is easiest to use? Why?[B]
TS 19:16	Have students practice winding bobbins, inserting bobbins, and raising the bobbin thread on different types of machines. Assist each student as needed and encourage students to work together.

TS 19:17 As a review of conventional sewing machines, have students label the parts of the sewing machine on Teaching Aid 144, Conventional Sewing Machines. Students may need to look at an actual sewing machine to complete this teaching strategy.[B]

INDUSTRIAL SEWING MACHINES

TS 19:18 Lead the class on a field trip to a manufacturing plant where industrial sewing machines are manufactured or an apparel manufacturer where industrial sewing machines are used. Have students take notes on what they observe and what experts at the facilities say about industrial sewing machines. When students return to class, have them write papers on the different types of industrial sewing machines used or manufactured.[B]

TS 19:19 Show an audiovisual that explains different types of industrial sewing machines and the different uses of each machine. Have students list on paper the names of all the machines presented in the audiovisual and read references or notes from the audiovisual to define the purpose of each machine.[B]

TS 19:20 Lead students to brainstorm differences in conventional and industrial sewing machines. Have students who have used industrial sewing machines explain how they compare to using conventional sewing machines.

TS 19:21 Show examples of ready-made clothing constructed with a lock stitch and a chain stitch. Provide an example of chain stitches and ask a volunteer to demonstrate how easily chain stitches can be removed. Have the volunteer select the correct thread and pull that thread to separate the two pieces of fabric that are sewn together. Ask students to determine what type of stitching is used on the garments they are wearing. KEY QUESTIONS: What number identifies a chain stitch? a lock stitch? When does a sewing machine not require a bobbin?

Types of Lock Stitch Machines

TS 19:22 Write or project the names of three types of lock stitch machines on a board or screen. Lead students to brainstorm the characteristics of each machine, listing each characteristic next to the name of the appropriate machine. Ask students to copy the lists and turn their papers over. Remove the listed terms and characteristics from the board or screen and write them in a different order. Ask students to list the characteristics with the correct lock stitch machines without looking at their notes.[B]

TS 19:23 Divide the class into cooperative learning groups and assign each group one of the following lock stitch machines: single-needle, multi-needle, or zigzag. Have the group research the machine and present oral and written reports to the class.[B]

Types of Chain Stitch Machines

TS 19:24 Demonstrate the procedure for threading a serger. Provide examples of serged seams for students to examine. Ask students to check the seams of their garments and determine if they have been serged. KEY QUESTION: What types of fabrics are most commonly used when sewing on a serger?

TS 19:25 Demonstrate the use of a serger, explaining the importance of safety when using industrial equipment. Point out the row of safety stitching, the multiple threads needed for serging, and the trimming attachment. Have students practice sewing on the serger.

Types of Automatic Sewing Machines

TS 19:26 Lead a class discussion on automatic sewing machines. Ask students to list the different types of automatic sewing machines currently available. Divide the class into cooperative learning groups and instruct each group to invent another type of automatic sewing machine. The groups should make models or draw designs of their new inventions and present their projects to the class. Examples of new types of automatic sewing machines are as follows:

- ripper outer – a machine that will remove any stitches that have been sewn into the fabric
- zipper inserter – a machine that will sew a zipper into a seam

TS 19:27 Show Teaching Aid 111, Machine-Worked Buttonholes. Explain the manual and machine methods of making buttonholes. Also explain the importance of accuracy in marking buttonhole placement. Lead a class discussion regarding the process involved in making machine-worked buttonholes. KEY QUESTIONS: Are buttonhole attachments always required for making machine-worked buttonholes? Why? How should thread be selected for buttonholes? Why is it important to make a test buttonhole? How should buttonholes be treated after they are machine stitched?

TS 19:28 Lead a class discussion on the advantages of a buttonhole machine. Have students define the term *bight*. KEY QUESTIONS: What is the difference between cut-after buttonholes and cut-before buttonholes? Which type of buttonhole cut is recommended for thin, delicate fabrics? Why? CRITICAL QUESTION: Of what importance is a buttonhole machine in the manufacturing of clothing?

Decorative Stitch Machine

TS 19:29 Have students find as many examples as possible of decorative stitching in their homes. Have students make a list of items they find and describe the decorative stitching, noting if it was done by hand or by machine. Have students write papers comparing and contrasting the decoration done by hand and the decoration done by machine, stating the advantages and disadvantages of both types of stitches.[B]

TS 19:30 Have students find pictures of decorative stitching in magazines or pattern books. Have students choose a difficult and a simple decoration and estimate the time it would take to complete each on an automatic sewing machine and by hand. Ask students if they have ever attempted to sew a scalloped edge, a monogram, or an embroidered design by hand or by machine. Have students list on paper the advantages and disadvantages of decoration done by machine and decoration done by hand. Let each student contribute an idea in a round table discussion.[B]

Use of Industrial Sewing Machines

TS 19:31 Distribute copies of Teaching Aid 145, Industrial Sewing Machines, and instruct each student to label the parts of the industrial sewing machine. Have students exchange papers and determine if the industrial sewing machines are labeled accurately. Lead a class discussion on the purpose of each labeled part.[B]

TS 19:32 Describe the use of a treadle and a knee press on an industrial sewing machine. Explain why it feels different to sew with these controls than with the conventional foot pedal. Ask if any students have used a treadle or knee press while sewing.

TS 19:33 Demonstrate the procedures for stitching on an industrial sewing machine. Point out the different thread guides on the machine and ask students to list the different forms of thread guides (eye, hook, spring, snap, slot, pigtail, tube, and groove). Guide students step by step through the process of sewing on the industrial sewing machine and allow each student to use the machine.

TS 19:34 Lead a class discussion on the differences between bobbins and loopers. Define the terms *loop spreader* and *shuttle hook* for students. KEY QUESTIONS: How can the problem of the bobbin being wound unevenly or too full be corrected? Why is it unnecessary to continually adjust the bobbin winder?

TS 19:35 Show students pictures or drawings of different types of machine beds. Have students read additional references on machine beds and write examples of sewing problems that could be solved by using specific types of beds. Show students the pictures of machine beds and have them identify the machine beds by name (flat, cylinder, raised, feed-off-the-arm, and post).[B]

TS 19:36 Divide the class into cooperative learning groups and have each group invent a new style of machine bed to solve a problem they have encountered while sewing. Groups should present their ideas to the class in an interesting, creative manner.[B]

SEWING MACHINE ATTACHMENTS

TS 19:37 Lead students to brainstorm different types of sewing machine attachments and their purposes. Identify industrial machines that serve the same purposes as the identified attachments. For example a button foot sews on buttons as does the button sewer automatic machine. CRITICAL QUESTION: Why would a manufacturer invest in an attachment rather than a machine that performs the same job?

TS 19:38 Provide students with examples of the attachments listed on pages 361-364 of the *Apparel and Textiles Production, Management, and Services Reference Book*. Have students identify the attachments and then play the game, "Know Your Attachments," which is similar to musical chairs. Have students sit in a circle. Pass the attachments around the circle while playing music. Stop the music and choose a student to identify his or her attachment. If the student identifies the attachment correctly, he or she remains in the circle. If the attachment is not identified correctly, the student must step outside of the circle Continue playing the game until one student remains in the circle.

Presser Feet

TS 19:39 Have students list different types of presser feet on paper. Have students read references and tell how and for what purpose each presser foot is used.[B]

TS 19:40 Have students examine a variety of presser feet on which numbers have been placed. Give each student a presser foot and ask him or her to identify the purpose and name of the presser foot. Have students record the information on paper. Tally the guesses and assign each presser foot the name and use that students gave it the most often. Once the presser feet are labeled according to students' guesses, review the accurate name and purpose of each presser foot, asking students to give reasons for their answers.[B]

Width Gauges and Edge Guides

TS 19:41 Instruct the class on the purposes of width gauges. Show examples of and demonstrate the use of different types of width gauges. KEY QUESTION: How do width gauges benefit the home sewer and the professional sewer?

TS 19:42 Have students read references and define *double-margin gauge*, *multi-margin gauge*, and *butterfly gauge*. Lead a class discussion on the students' definitions. Determine the similarities and differences in the gauges. KEY QUESTIONS: Why is the double-margin gauge sometimes called the swing gauge? How many types of edges does the multi-margin gauge have?[B]

Hemmers

TS 19:43 Show the class a hemmer. Place the hemmer out of sight and ask students to draw pictures of the hemmer. Ask volunteers to show their pictures. Compare several pictures to see how differently each student viewed the hemmer. KEY QUESTIONS: What is the purpose of a hemmer? What are the different types of hemmers and how do they work?

Folder

TS 19:44 Demonstrate the use of a folding attachment, explaining the reasons this attachment is helpful. Provide students pieces of lace, rickrack, or other decorative trims. Have students sew the trims onto pieces of fabric using the folder. Create a display with the decorated samples sewn with the folder.

Lapped Seam Attachments

TS 19:45 Show examples of garments that have double-lapped seams, such as men's shirts and women's blouses. Divide the class into cooperative learning groups and have the groups take apart the lapped seams. Have each group choose a group leader to speak to the class about how the seam they took apart was constructed. Ask each student who is wearing a garment that has a lapped seam to stand and tell the class where the lapped seams are on the garment. KEY QUESTION: Why is sewing a double-lapped seam without a lapped seam attachment difficult?[C]

Cutting and Trimming Attachments

TS 19:46 Lead students to brainstorm and describe when cutting is necessary during sewing. Have students research the number of times during the sewing process that sewing is stopped and cutting is done. Lead a class discussion on the time saved by using cutting and trimming attachments.[B]

TS 19:47 Describe different types of cutting and trimming attachments. Have students read references about cutting and trimming attachments and write paragraphs detailing the procedures that each attachment follows to cut or trim.[B]

Attachments for Adding Trim

TS 19:48 Demonstrate the use of a binder, explaining why this attachment is helpful and how it is similar to the folder. Describe other attachments used for adding trim. KEY QUESTION: While using an attachment to add trim, what is the main job of the sewer?

Cording and Welting Attachment

TS 19:49 Provide examples of garments that have cording sewn in by hand and by machine. Ask students to view the examples and determine which items are sewn by hand and which are sewn by machine. Have students list the advantages and disadvantages of both methods.

Pleating Attachments

TS 19:50 Lead a class discussion on the difficulties of sewing in pleats. Demonstrate the use of a pleating attachment. Have students practice using the pleating attachment. KEY QUESTION: What must the machine operator do for a pleating attachment to produce good pleats?

Gathering and Shirring Attachments

TS 19:51 Instruct students to draw pictures of rufflers or other gathering attachments. Also have students describe how the attachments work. Have students present their pictures and descriptions in class. Create a display with the drawings. After the presentations, show students a ruffler and a gathering foot. Have students choose the drawing that most resembles the actual attachment.[B]

CARE OF SEWING MACHINES

TS 19:52 Ask students to read care manuals of sewing machines and make lists of simple maintenance steps recommended.[B]

TS 19:53 Demonstrate oiling and cleaning procedures on an industrial sewing machine and a conventional sewing machine. Divide the class into cooperative learning groups and have each group check the sewing machines for necessary cleaning and oiling. KEY QUESTIONS: Why is it important to wipe excess oil off of the machine? What type of oil should be used when oiling a sewing machine?

TS 19:54 Give copies of Teaching Aid 146, Cleaning a Sewing Machine, to students and have them place the steps for cleaning a sewing machine in the correct order.[B]

TS 19:55 Lead students to brainstorm warning signals that can alert an operator when repairs are needed on a sewing machine. Have students identify repairs that can be done by the sewing machine operator and repairs that should be done by a mechanic. Write or project the repairs on a board or screen in two separate columns and discuss the reasoning behind the different lists.

MISCELLANEOUS SEWING EQUIPMENT AND TOOLS

TS 19:56 Have students read selected references on sewing equipment. Lead students to brainstorm to identify types of small equipment, tools, and notions needed for sewing.[B]

Cutting Equipment and Tools

TS 19:57 Arrange a field trip to an apparel or textiles manufacturing plant to observe the cutting and spreading process. Point out the spreading machine, cloth inspection devices, electronic eye, vertical knife, band knife, circular knife, die cutting, computer driven knife, water jet, laser, plasma cutters, and automated cutting techniques.

TS 19:58 Have students read references on cutting and spreading techniques used in the apparel and textiles industries. Have students write papers comparing and contrasting the automated cutting system, the manual cutting system, the laser cutting system, and the water jet cutting system.[B]

TS 19:59 Define the following terms for students: *spreading, lay, spreading machine, cutter, automated cutting systems, laser cutting*, and *water jet cutting*. Ask students if they have ever witnessed or participated in any of the above activities. Have students tell about their experiences. KEY QUESTIONS: Is one of these methods appropriate for all types of apparel and textile manufacturing? Why?

TS 19:60 Display examples of different types of scissors, including children's paper cutting scissors and kitchen shears. Ask students to identify the types of scissors and list their functions on pieces of paper. Describe the purpose and use of each pair of scissors and have students check their papers.[B]

TS 19:61 Give each student a different type of cutting tool, such as a seam ripper, kitchen shears, pinking shears, or children's paper cutting scissors, and a scrap of fabric. Have each student cut the fabric several times with his or her cutting tool. Each student should prepare a brief presentation explaining what the cutting tool's actual purpose is in the apparel industry and why the tool performed the way it did on the fabric.

TS 19:62 Have students describe the ideal cutting surface and then describe what is most often used for a cutting surface in conventional sewing. Explain the reasons a manufacturer is most likely to have ideal cutting equipment and surfaces. Show students an example of a cutting board.

Marking Equipment and Tools

TS 19:63 Have students read references and define the following terms: *position marking, drill holes,* and *marking for shade.* Lead a class discussion on the importance of using these marking methods in the manufacturing of apparel. KEY QUESTIONS: How have position marking, drill holes, and marking for shade made marking easier and more accurate than methods used twenty years ago? fifty years ago?

TS 19:64 Give each student a piece of dressmaker's carbon paper, a tracing wheel, and a scrap of fabric. Have each student mark a dart, an *x*, and a seam line using these tools. Lead a class discussion on the advantages and disadvantages of marking with a tracing wheel and carbon paper. KEY QUESTIONS: What type of marking tool is used with tracing paper? Is the same tool used when marking without tracing paper? How do manufacturers mark darts and other symbols?

TS 19:65 List the similarities and differences in tailor's chalk, tailor's wax, tailor's tacks, dressmaker's marking pencils, and dressmaker's marking pens. Show examples of each to the class. Ask students if they have ever used any of the marking tools or techniques. Lead a class discussion to determine which marking method is most appropriate for use by custom sewers, professional alterationists, and apparel designers.

TS 19:66 Ask several students to bring pin cushions with pins to class. Lead a class discussion on the different types of straight pins and their uses. KEY QUESTIONS: What tool is used to clean and sharpen straight pins? What is an effective method for locating pins that have been dropped?

Sewing Tools and Supplies

TS 19:67 Demonstrate ways in which tissue paper, transparent tape, and self-sticking sewing tape can be used when sewing. Ask students if they have thought of using these supplies in such a manner. KEY QUESTIONS: What types of sewing machine attachments perform similar functions as tissue paper, transparent tape, and self-sticking sewing tape? How can using simple sewing supplies be helpful to the home sewer and the professional sewer?

TS 19:68 Have students read references and list the different tools and supplies needed for quality workmanship. Ask students to read their lists to see how many different tools and supplies are named. Write or project a complete list on a board or screen and have students rank the items in order of most used to least used in home sewing and in apparel manufacturing.[B]

TS 19:69 Show students a needle threader, serger tweezers, loop turner, bodkin, awl, pliers, pointer and creaser, embroidery hoop, lap board, and plumb line. Place all of the tools in a container. Ask each student to draw a tool from the container, name the tool, and describe its purpose.

PRESSING

TS 19:70 Divide the class into cooperative learning groups and assign the groups to define *pressing* or *ironing*. Have each group elect a demonstrator and a leader. Have the demonstrator present the ironing or pressing procedure while the leader describes the procedure.[C]

Equipment

TS 19:71 Arrange a field trip to a commercial dry cleaning establishment, a commercial laundry, or an alterations room in a department store to view pressing equipment. Ask the employees responsible for pressing and ironing to tell students about their jobs and the equipment used. Have students observe the correct procedures used for pressing pants, skirts, dresses, blouses, and shirts. Encourage students to ask questions by having them prepare questions on note cards before the field trip.[B]

TS 19:72 Have students read references on pressing equipment and define the following terms: *foot press, steam press, pressing buck, pressing form, portable steam presser, electric puff iron, temperature regulated iron, steam iron, steam iron pressure tank, iron shoe,* and *iron stand.* Lead a class discussion on the importance of good pressing equipment.[B]

TS 19:73 Use Teaching Aid 147, Pressing Equipment, to help students identify a variety of pressing equipment. Play an identification relay game. Divide the class into two cooperative learning groups and have each group line up along the sides of the room. Place two bells at the front of the room and have a student from each team try to ring the bell first and announce the correct term for the pressing equipment pictured.

Procedures

TS 19:74 Lead a class discussion on the pressing procedures to follow for a professional look. Ask volunteers to tell of pressing accidents or problems they have encountered, such as burning a garment, leaving an iron turned on, or melting a zipper or button. Have students list on pieces of paper as many pressing procedures as possible.[B]

TS 19:75 Demonstrate the proper techniques for pressing specific garments. Have students practice pressing pants and slacks, skirts, dresses, blouses, and shirts. Evaluate the pressed garments.

20

Receiving, Marking, and Identifying Laundry and Dry Cleaning

ESSENTIAL ELEMENT

- Demonstrate procedures to receive, mark, and identify laundry or dry cleaning.(q10A)

OBJECTIVES TO ACHIEVE

- Outline general procedures for receiving, marking, and identifying laundry.
- Identify general procedures for receiving, marking, and identifying dry cleaning.

ASSIGNMENT

- Read Chapter Twenty in the *Apparel and Textiles Production, Management, and Services Reference Book.*

RECEIVING, MARKING, AND IDENTIFYING LAUNDRY

TS 20:1* Have students define the term *commercial laundry*. Ask them to describe a commercial laundry they have worked for or patronized. Explain the differences between a laundry drop-off center and a commercial laundry.

TS 20:2 Lead a field trip to a commercial laundry establishment. Have students observe various aspects of the business and write papers describing what they observe.[B]

TS 20:3 Show an audiovisual on commercial laundries and dry cleaners. Lead a class discussion on various job responsibilities involving receiving, marking, and identifying laundry. KEY QUESTIONS: What are the major responsibilities of employees in commercial laundries? How are employees of commercial laundry establishments trained to perform their job responsibilities? Why is safety an important aspect of the commercial laundry business?

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* TS 20:1 indicates teaching strategy, chapter 20, number 1.
[B] = Basic Skill Reinforcement
[C] = Common Essential Element

Explaining Costs

TS 20:4 Conduct a role play with two students playing the parts of a customer and an employee in a commercial laundry establishment. The employee should greet the new customer and carry on a conversation with the customer. The customer should ask questions regarding the prices that she or he will be charged. The employee should explain the business' policies and prices. The following scenarios are examples that may be followed:

- The customer is rude and argumentative with the nice employee.
- The employee is rude and not helpful to the nice customer.
- The employee is confused about the policies and prices and informs the customer incorrectly.
- The customer misunderstands the employee and does not have enough money to pay for the cleaning when it is ready.

Have other students analyze each situation in the role play in terms of the employee's behavior and make suggestions for how the employee could behaved differently.[C]

TS 20:5 Lead a class discussion to define the terms *pretreating*, *sizing*, and *pressing*. Ask students if any of these activities are done in their homes. If so, ask what steps are followed. Have students describe the roles they play in doing the laundry at their homes. KEY QUESTIONS: Why is it necessary for a commercial laundry to charge extra when pretreating, pressing, or sizing clothes? Is is most common in the local community to pay for laundry by weight or by the piece?

Labeling and Sorting

TS 20:6 Have students describe the laundry process followed in their homes. Ask them how their laundry is kept separate from their brother's, sister's and parent's laundry. Lead a class discussion on the way commercial laundries keep each customer's laundry separate. KEY QUESTIONS: What is the most effective way to separate customers' laundry in a commercial laundry? What are some objections that a customer may have to labeling a garment?

TS 20:7 Have students look for print or television advertisements that deal with laundering and specifically with stains. Have students write descriptions of the television ads and bring print ads to class. Ask students to note the single most important themes the advertisements are communicating to consumers about stains. Lead a class discussion about why it is important to inform the employee at a commercial laundry about any special stains on a garment.

TS 20:8 Demonstrate the process of sorting clothes for laundering. Discarded items of apparel or items obtained from a garage sale may be used for the class laundry lessons. After the demonstration, make lists of apparel items on a board. Ask students to make five columns on a sheet of paper with the following labels: Regular Wash (whites), Regular Wash (colors), Heavily Soiled (whites), Heavily Soiled (colors), and Miscellaneous. Have students write names of the items listed on the board in the appropriate columns. Allow students to compare their papers to check for correct sorting of the clothing items.[B]

RECEIVING, MARKING AND IDENTIFYING DRY CLEANING

TS 20:9 Lead a field trip to a commercial dry cleaning establishment. Have students observe various aspects of the business and write papers describing their observations.[B]

TS 20:10 Have students set up a mock dry cleaning business. Ask students to volunteer to role play the parts of the customer, the employee, and the owner of the business. Have students prepare two brief scripts for the role play. One script should depict the correct way to conduct business in a serious manner and another script should depict the incorrect way to conduct business in a comical manner.[C]

Types of Dry Cleaning Services

TS 20:11 Have students look in references to define the term *finish*. A good resource is the *Institutional Maintenance Reference Book*. Ask the class to describe as many fabric finishes as possible. Write these on the board and award a prize to the person who thinks of the most examples.

TS 20:12 Invite a representative from a dry cleaning establishment to class to discuss procedures used in dry cleaning and approximate costs involved. NOTE: If it is not possible to have a resource person from a dry cleaning establishment speak to the class, students can interview a dry cleaning employee and share information with the class. If a speaker is secured, it may be helpful to prepare a list of questions and concerns students have on cleaning special fabrics. Students may also use the list of questions for interviews. KEY QUESTIONS: Why do certain fabrics require dry cleaning? Should the care label be checked before sending a garment to a dry cleaners? Is it safe to send all garments to the dry cleaners? Why is it important to tell the dry cleaner if one has tried to remove a stain from a garment prior to bringing it to the dry cleaner? Why is it important to tell the dry cleaner the types of stains in garments?

Sorting and Separating Dry Cleaning

TS 20:13 Have students look in fashion magazines or pattern books for examples of garments that have ornamentation. Bring samples of ornamentation that have been ruined by the cleaning process. Have students suggest reasons why it is important for ornamentation to be removed from garments before cleaning. KEY QUESTION: Whose responsibility is it to remove ornamentation and empty the pockets of garments before they are cleaned?

Self-Service Dry Cleaning

TS 20:14 Lead a class discussion on the advantages and disadvantages of self-service dry cleaning. Ask students if any of them have used the self-service dry cleaning method. Have students who have used the method to describe the process to the class.

TS 20:15 Have students locate a self-service dry cleaning machine, and observe how it is operated. Students should ask the employee on duty to explain the operating procedures in detail and should watch the actual operation. Students should prepare a written set of instructions to be posted in a dry cleaning establishment. KEY QUESTIONS: What safety procedures should be followed when using self-service dry cleaning machines?

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Laundry and Dry Cleaning Procedures

ESSENTIAL ELEMENTS

- Determine appropriate laundry and dry cleaning procedures.(q10B)
- Demonstrate commercial laundry or dry cleaning techniques.(q10D)

OBJECTIVES TO ACHIEVE

- Compare a variety of laundry products.
- Explain the importance of prelaundry procedures such as sorting and stain removal.
- Differentiate between the functions of mechanical energy, chemical energy, and thermal energy.
- Understand the operation of commercial washers and dryers.
- Outline procedures to follow before dry-cleaning apparel and textile products.
- Understand the operation of commercial dry cleaning equipment.

ASSIGNMENT

- Read Chapter Twenty-one in the *Apparel and Textiles Production, Management, and Services Reference Book.*

COMMERCIAL LAUNDERING

Laundry Products

TS 21:1* Lead students to brainstorm for the different benefits of laundering. Have students bring examples of laundry products from home. Ask each student to read aloud the information on the container about using the product and precautions that should be observed when using the product. KEY QUESTIONS: What may result from incorrect application of a laundry product to a textile product? How do commercial laundries determine which laundry products to use on customers' garments?

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* TS 21:1 indicates teaching strategy, chapter 21, number 1.
[B] = Basic Skill Reinforcement
[C] = Common Essential Element

TS 21:2 Show a videotape from a laundry product manufacturer or association on the use and application of laundry products. Ask students if they have ever used the incorrect product or application while laundering and have them describe what happened to the garments or textile products as a result. KEY QUESTION: Why is it important to read and follow the directions on all cleaning products? CRITICAL QUESTION: What steps can be taken to reduce the pollutants that many laundry products produce?

TS 21:3 Have students read references to define the term *pH level*. Determine the pH level of tap water by performing a test using a kit that may be purchased from a swimming pool supply business or a hardware store. It may be possible to purchase several kits and allow cooperative learning groups to perform experiments rather than performing one class experiment. It may also be interesting to perform the experiment on different types of water from other areas of the state or country. If students are able to perform the experiment in groups, have them report their findings in oral reports to the class.[B][C]

TS 21:4 Lead a class discussion about the different guidelines to follow when using laundry products. KEY QUESTIONS: Why is it important to know the difference between hard and soft water? What are some of the advantages and disadvantages of washing in hot water? CRITICAL QUESTION: How useful is it to have a permanent water softening device in a home or business setting?

TS 21:5 Write or project the following terms on a board or screen:

- presoak product
- soap
- alkali
- soap curd
- detergent
- surfactant
- suds control agent
- builders
- eutrophication
- bleach
- chlorine bleach
- oxygen-based bleach
- bluing
- fluorescent whitening agents (FWAs)
- fabric softener
- starch

Ask each student to write the terms on paper and write a definition for each term. In addition, have students include examples of when each of the laundry products in the list of terms is used by commercial laundries. Lead a class discussion to review the terms. KEY QUESTIONS: What safety hazards exist when using these laundry products? How can unsafe practices when using various laundry products be reduced in a commercial laundry business? CRITICAL QUESTIONS: How are laundry product waste materials disposed of by commercial laundries? What regulations exist regarding safe disposal of hazardous substances? How is the environment impacted when hazardous substances are not used and disposed of properly?

TS 21:6 Lead a class discussion on the effects of bleach. Conduct an experiment using different types of bleaches to show students how different textiles react to different kinds of bleach. KEY QUESTIONS: Why is it important to dilute liquid bleach in water before adding it to the regular wash cycle? What results when chlorine bleach is applied directly to most fabrics?

TS 21:7 Bring examples of liquid, spray, and powdered starch to class and have students starch different types of garments or fabrics. Have students write a paper comparing and contrasting the three methods of starching fabric, indicating which method they would prefer on their own clothes and why.[B]

Prelaundry Procedures

TS 21:8 Have students define *sorting* and give examples of how laundry sorting is done in their homes. Lead a class discussion on how laundry is sorted in a commercial laundry establishment. KEY QUESTIONS: Why is sorting laundry important? What are the four main categories often used in sorting laundry prior to washing? What are other categories into which laundry may be sorted based on special handling that may be required?

TS 21:9 Have students read selected references regarding stains and stain removal. Ask students to identify the stains that occur most often for them. Demonstrate stain removal procedures featuring removal of the following stains and other stains students identify: blood, cosmetics, ballpoint pen ink, and grease. KEY QUESTIONS: Why is it important to treat a stain as soon after it occurs as possible? What are two techniques that can be applied when stubborn stains persist after using the conventional methods of removal? What safety procedures should be followed when using stain removal products?[B]

TS 21:10 Divide the class into cooperative learning groups. Assign each group one of the following treatment methods: soaking, pretreating, or stain removal. Have each student research the assigned treatment and perform three different experiments.[B]

The Washing Process

TS 21:11 Display Teaching Aid 148, Forms of Energy. Define the terms *mechanical energy*, *chemical energy*, and *thermal energy*. Explain how to increase the levels of these energies and why increases may be necessary. Have students design models to explain different forms of energy and make presentations explaining the models.[B]

TS 21:12 Have students read references to define the following terms: *wetting*, *emulsifiers*, *dispersing*, *sequestering*, and *break*. Lead a class discussion on the terms, allowing students to share definitions. KEY QUESTION: Why is the water level important when laundering textile products? CRITICAL QUESTIONS: What effects does detergent have on soil? Why is the use of detergent important in laundering?[B]

TS 21:13 Invite a sales representative from a chemical company to speak to students about chemical energy and the chemicals that he or she sells. Ask the speaker to include dangers that are involved when handling the chemicals and safety procedures that must be observed when working with chemicals. KEY QUESTION: How should chemicals be handled in order to protect the environment?

Laundry Equipment

TS 21:14 Instruct students to read references about different kinds of washers and dryers. Have students define a *front loader*, *extraction machine*, and *washer/extractor machine* in writing.[B]

TS 21:15 Show an audiovisual that explains the washing and drying process of a commercial laundry machine. An audiovisual may be available from a company that manufactures commercial laundry equipment. Lead a class discussion on the differences in a washing machine and an extraction machine.

TS 21:16 Lead a class discussion on the different cycles of a commercial washer. Compare the cycles on a commercial washer with those on conventional washing machines.

TS 21:17 Have students write as many guidelines as possible for operating a commercial washer and achieving successful results. Have each student exchange papers and read another student's paper. Ask each student to stand whose paper has ten different guidelines. Have students standing read the guidelines listed.[B]

TS 21:18 Define the term *drying* and lead a class discussion on the guidelines for using a commercial dryer. KEY QUESTIONS: Why should a timer be used to control drying time? Why is it important to control the temperature of the dryer with a thermostat? CRITICAL QUESTION: What are the differences between a commercial dryer and a conventional dryer?

COMMERCIAL DRY CLEANING

Precleaning Procedures

TS 21:19 Have each student design a graph, chart, or pyramid to explain the process of pretreating and preparing items to be dry-cleaned. Students' examples should illustrate the steps necessary before dry cleaning and identify the order in which these steps should be completed. Have students present their examples to the class and display the examples in the classroom.[B]

TS 21:20 Define the terms *solvent*, *wet side chemicals*, and *dry side chemicals* for students. Provide samples of each of these chemicals so students may see and smell the chemicals. Ask students if they recognize the smells from items cleaned at a dry cleaners.

Cleaning Procedures

TS 21:21 Describe the procedures for handling delicate items such as antique lace or quilts. Provide samples of delicate items and items that have been damaged during the dry cleaning process. KEY QUESTION: Why is it important to use special care in dealing with delicate items? CRITICAL QUESTIONS: What should an employee of a commercial laundry establishment do if an item is damaged while being cleaned? What should the owner of the business do to keep the customer?[C]

Dry Cleaning Equipment

TS 21:22 Have students read additional references and describe the differences between commercial dry cleaning equipment and commercial laundry equipment by writing papers.[B]

TS 21:23 Divide the class into cooperative learning groups and have the groups discuss filtering systems. Have each group design a filtering system for commercial dry cleaning equipment. The design can be drawn on paper, described on paper, or constructed as a model. Have each group select a leader to describe the filtering system to the class.[B][C]

Postcleaning Procedures

TS 21:24 Lead a class discussion on the final processes that a commercial dry cleaning business must use to complete the cleaning process. KEY QUESTION: Why is it important to press a dry-cleaned item after it has dried?

TS 21:25 Invite a guest who does blocking to demonstrate the process to the class. Ask the guest to explain any disadvantages there may be to having an item blocked. As an assignment, have each student block an item at home and bring it to class, explaining the procedure used.

22 Safety and Sanitation for Laundering, Pressing, and Dry Cleaning

ESSENTIAL ELEMENT

- Demonstrate safety and sanitary procedures while laundering, pressing, or dry cleaning.(q10C)

OBJECTIVES TO ACHIEVE

- Determine appropriate safety procedures to observe when laundering, dry cleaning, and pressing apparel and textile products.
- Outline effective sanitation methods for use when laundering, dry cleaning, and pressing apparel and textile products.

ASSIGNMENT

- Read Chapter Twenty-two in the *Apparel and Textiles Production, Management, and Services Reference Book.*

TS 22:1* Lead students to brainstorm for accidents that could happen under the following conditions: operating machinery at unsafe speeds, removing safety devices from equipment, failing to have proper training before operating equipment, using defective equipment, using equipment improperly, using laundry or dry cleaning products and solvents improperly, disposing of laundry and dry cleaning products and solvents improperly, and failing to use safety devices. Ask students if they have known anyone to be involved in such accidents and describe why the accidents occurred. KEY QUESTIONS: What is the main reason most accidents happen? Why is it important for businesses to encourage safety in the workplace?

TS 22:2 Lead a class discussion on the unsafe physical conditions of businesses. Ask students if they have seen any unsafe physical conditions in commercial laundry and dry cleaning businesses. CRITICAL QUESTION: Should safety in the workplace be the total responsibility of the owner of a business?

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* TS 22:1 indicates teaching strategy, chapter 22, number 1.
[B] = Basic Skill Reinforcement
[C] = Common Essential Element

SAFETY PROCEDURES

Laundry

TS 22:3 Write or project the following terms on a board or screen: lid switch, safety brake, push-to-stop timer, interlocking device, safety door switch, separate start button, friction door latch, and limiter control or motor protector. Have students write a description for each term. Lead a class discussion on the importance of each safety feature in preventing injuries and the location of each safety device on commercial washers and dryers.

Dry Cleaning

TS 22:4 Determine names of cleaning fluids used in full-service and self-service dry cleaning establishments. Ask a chemistry teacher to help students determine the composition of the solutions and to describe the harm these solutions can do to skin. KEY QUESTIONS: What does each of the cleaning fluids contain? How have cleaning fluids improved over the years?

Pressing

TS 22:5 Lead a class discussion on the safety hazards present when using various types of pressing equipment. Ask students to describe an accident they or people they know have had that involved use of pressing equipment. KEY QUESTIONS: What part of a conventional iron should the iron rest on when not in use? Why should the water be emptied from a steam iron after it is used?

SANITATION PROCEDURES

TS 22:6 Have students read class resources to define the term *sanitation* and tell how it relates to commercial laundry and dry cleaning businesses. Describe other businesses that must have clean or sterile environments. KEY QUESTIONS: How do the terms *clean* and *sterile* differ? When is a sterile environment necessary as compared to a clean environment?

TS 22:7 Show an industry audiovisual on safety and sanitation in the workplace. Display pictures of clean, well-kept businesses and employees; show pictures of dirty, unkempt businesses and employees. Ask students which businesses they would prefer to patronize and which businesses they would consider working for as employees. KEY QUESTION: Why is it important for employees to present a neat, clean image?[C]

TS 22:8 Give students the names of several different local, state, and federal health inspectors and have students contact these people and schedule interviews. It may be necessary to divide the class into cooperative learning groups and have each group interview an inspector. Provide each student a copy of Teaching Aid 153, Interviewing Health Inspectors. Have students write thank you notes to the inspectors interviewed.[B][C]

Laundry

TS 22:9 Direct students read references on the use of various water temperatures used for laundering. Have students heat water in a microwave oven or on a range. Students should use a thermometer to determine when the water reaches 130°F. Compare the hot water from the tap with water heated on the range or in the microwave oven. Lead a class discussion on the importance of the water reaching 130°F when laundering. KEY QUESTIONS: How can tap water temperature be raised? In most conventional washing procedures is it necessary to wash in hot water? What safety precautions should be observed when the water temperature is raised in order to sanitize the laundry? Can energy be saved by using lower water temperatures for laundry? Should all textile products be washed in hot water? If not, how should consumers and employees in commercial laundry establishments determine appropriate water temperatures for specific items being laundered? What cleaning and sanitizing quality results from using lower water temperatures for laundry?

Dry Cleaning

TS 22:10 Have students refer to the models of filtering systems that they made as part of Teaching Strategy 21:23 and determine how dry cleaning solvent can become stagnant. Emphasize the importance of using clean solvents for dry cleaning.

TS 22:11 Have students close their eyes and think about what they smell and hear upon entering a commercial dry cleaning establishment. Ask several students to describe their experiences to the class. Have students review information shared with the class by the chemistry teacher in Teaching Strategy 22:4 on dry cleaning solvents. KEY QUESTION: Why is it unsafe to continuously breathe air that smells like dry cleaning solvent?

Pressing

TS 22:12 Provide each student with a copy of Teaching Aid 150, Types of Disinfectants. Have students read the chart, determine appropriate types of disinfectants for sanitizing pressing equipment, and provide reasons for recommendations. Have students list products available to consumers that include each disinfectant. Lead a class discussion to determine which products would be appropriate for sanitizing pressing equipment and which products would be harmful if applied to pressing equipment.

TS 22:13 Demonstrate proper sanitation techniques to the class. Have students sanitize pressing equipment in the classroom after reading references on the proper procedures for cleaning pressing equipment. KEY QUESTIONS: Why is it important that only clean garments be pressed? Does the heat from the pressing equipment kill all germs that may have been transferred to the equipment?

Teaching Aids

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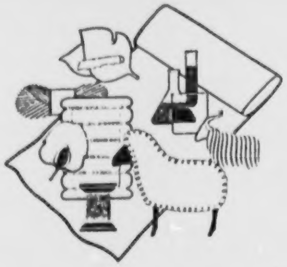
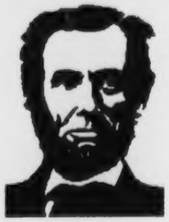
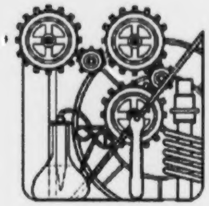
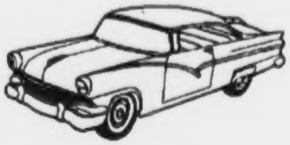
Historical Time Line

Year	Event
1800s	The textile industry grew in New England and expanded to the South.
1793	Eli Whitney invented the cotton gin.
1813	Francis Lowell introduced the power loom.
1845	Elias Howe improved the sewing machine.
1846	Isaac Singer mass produced a foot treadle sewing machine.
1884	Rayon, the first manufactured fiber, was produced.
1921	An electrically powered sewing machine was introduced.
1924	Acetate was produced.
1930	Nylon was produced.
1953	Polyester was produced.









TA 1

Textiles and Clothing Design Job Responsibilities

Michael has a job in textiles and clothing design as a cutter. What daily responsibilities is Michael likely to have?

What types of training and skills would be needed for Michael's job?

Ross is a clothing designer. When designing a new line of apparel, what tasks is Ross likely to perform during an average day of work?

What types of training and skills would be needed for Ross' job?

Maria is a textiles researcher. What tasks might Maria perform during an average day?

What types of training and skills would be needed for Maria's job?

Job Responsibilities for Merchandising, Fashion, and Retailing

Across from each job identified, list major responsibilities of a person employed in that job. Then, list training and preparation needed for employment in the identified job.

Jobs	Job Responsibilities	Training and Preparation
Buyer		
Department store manager		
Fashion coordinator		
Fashion model		
Salesperson		
Stock clerk		
Window and store display person		

TA 4

Statement

▶▶▶▶▶▶▶▶▶▶▶▶▶▶▶▶▶▶▶▶ PARADISE ▶▶▶▶▶▶▶▶▶▶▶▶▶▶▶▶▶▶▶▶

Name ______________________________

Address ______________________________

City/State/Zip ______________________________

Statement Number
C48952398

Store Number
444

Date __________

Item Descriptions	*Dept./Class/Stock*	*Amount*

Salesperson # and Initials ______________________

Customer Signature ______________________

☐ **Cash/Check** Check Number __________________

☐ **Credit** Account Number __________________

☐ **Layaway** Down Payment __________ Balance __________

Customer Copy

Sales Commission Case Study

Len-Yung has secured a part-time sales position at Murphy's Shoe Store. She will work four hours each evening Monday through Thursday and six hours each Saturday. At the job interview, the employer explained that during the first three months the employee is on probation and earns only sales commission. Sales commission is 3% of a total day's sales. After the probation period ends, the employee earns a salary ($4.25 per hour) plus 3% sales commission on each ten pairs of shoes sold. If ten pairs of shoes are not sold during one week, no sales commission is earned.

Len-Yung wants to estimate her projected earnings in order to decide if they will cover her expenses. Using the sales information provided, calculate Len-Yung's income for the first three months. Using the same estimated figures for projected sales, calculate Len-Yung's salary-plus-commission earnings assuming that she sells the following amounts:

Monday – six pairs @ $18.00, $18.00, $19.99, $21.00, $28.00, and $38.00
Tuesday – eight pairs @ $10.99, $18.00, $19.99, $19.99, $28.00, $34.00, $38.00, and $54.00
Wednesday – five pairs @ $18.00, $18.00, $19.99, $24.00, and $26.00
Thursday – ten pairs @ $18.00, $19.99, $19.99, $19.99, $24.00, $24.00, $26.00, $34.00, and $54.00
Saturday – eleven pairs @ $10.99, $10.99, $19.99, $19.99, $19.99, $24.00, $24.00, $28.00, $29.99, $29.99, and $38.00

Answers: Sales commission for one month is $116.16; sales commission for three months is $348.48; salary-plus-commission for one month is $490.16.

TA 6

Satellite Operation

Piece goods and other materials are received at central facility.

Designs are made at central facility.

Patterns and markers are created at central facility.

Piece goods are cut at central facility.

Garments are sewn at other sites.

Garments are warehoused at central facility.

Garments are shipped from central facility.

Industrial Clothing Production

Across from each type of industrial clothing production firm listed, identify the functions and characteristics of the type of firm.

Industrial Clothing Production Firms	**Functions and Characteristics**
Clothing manufacturer	
Satellite operation	
Jobber	
Contractor	

Textile Industry Contacts

American Textile Manufacturers
Institute, Inc.
1101 Connecticut Avenue, N.W.
Washington, D.C. 20036
(202) 862-0500

American Apparel Manufacturers
Association
2500 Wilson Boulevard
Suite 301
Arlington, VA 22201
(703) 524-1864

American Fiber Manufacturers Association, Inc.
1150 17th Street, N.W.
Washington, D.C. 20036
(202) 296-6508

American Wool Council
200 Clayton Street
Denver, Colorado 80206
(303) 399-8130

Carolina Mills, Inc.
P.O. Box 157
Maiden, N.C. 28650
(704) 428-9911

Cone Mills Corporation
1201 Maple Street
Greensboro, N.C. 27405
(919)379-6251

Crafted With Pride in U.S.A. Council,
Inc.
1045 Avenue of the Americas
New York, NY 10018
(212) 819-4397

Cross Mills, Inc.
513 Carson Street
P.O. Box 520
Marion, N.C. 28752
(704) 652-3111

Dan River, Inc.
2291 Memorial Drive
Danville, VA 24541
(804) 799-4876

Dundee Mills, Inc.
Drawer E
Griffin, GA 30224
(404) 227-5581

Fieldcrest Cannon, Inc.
Eden, N.C. 27288
(919) 627-3359

Harmony Grove Mills, Inc.
P.O. box 359
Commerce, GA 30529
(404) 335-3171

Knitted Textile Association
386 Park Avenue south
New York, NY 10016
(212) 689-3807

Mayfair Mills, Inc.
Hayne Street
Arcadia, S.C. 29320
(803) 576-2610

Microdynamics, Inc.
10461 Brockwood Road
Dallas, Texas 75238
(214) 343-1170

Textile Industry Contacts

Mount Vernon Mills, Inc.
P.O. Box 3478
Greenville, S. C. 29602
(803) 233-4151

National Cotton Council of America
1918 North Parkway
P.O. Box 12285
Memphis, TN 38182

National Wool Growers Association
1301 Pennsylvania Avenue, N.W.
Suite 300
Washington, D.C. 20004
(202) 628-1333

Pendleton Woolen Mills
218 S. W. Jefferson Street
Portland, OR 97201
(503) 226-4801

Spartan Mills
P.O. Box 1658
Spartanburg, S.C. 29304
(803) 574-0211

Swift Textiles, Inc.
P.O. Box 1400
Columbus, GA 31994
(404) 571-8477

Personal Qualities

Clothing Production and Management Jobs

- ☐ attention to detail
- ☐ ability to work quickly and efficiently
- ☐ ability to follow instructions
- ☐ organizational skills
- ☐ patience with repetitive tasks
- ☐ endurance when performing repetitive tasks
- ☐ creativity when involved in design tasks
- ☐ ability to follow detailed instructions
- ☐ ability to focus on assigned tasks
- ☐ ability to be goal-oriented in reaching production quotas

Personal Qualities

Case Study

Richard plans to have a career in the field of clothing production and management. He understands that working on a part-time basis in clothing production while in high school may provide valuable experience for the future. Richard found a job and began work. The first day of work, he was late. Richard attended a first-day orientation session during which the supervisor emphasized procedures for sewing machine operation and outlined specific duties of Richard's job. Richard was assigned a sewing machine and was given a quota of 100 pockets to sew on shirt fronts. Richard became impatient with the task and continually interrupted the worker seated in front of him by asking her questions.

Using complete sentences, respond to the following items on a separate sheet of paper:

1. Which of Richard's personal qualities match the qualities needed by a person employed in the field of clothing production and management?
2. What personal weaknesses should Richard try to strengthen?
3. Rewrite the case study describing Richard as having personal qualities that are desirable for success in his job.

Five Rights of Merchandising

Right Merchandise

Right Place

Right Time

Right Quantity

Right Price

Qualities for Success
Checklist

Place a ✔ in the appropriate column to indicate if the personal quality is one you possess or one that needs improvement. After completing the checklist, write a plan for improvement on the next page.

Qualities	Strong	Needs Improvement
Ability to make decisions		
Fashionable appearance		
Flexibility		
Good communication skills		
Good grooming		
Good handwriting		
Good memory		
High energy level		
Knowledge of current fashion trends		
Knowledge of style		
Knowledge of textiles		
Maturity		
Outgoing personality		
Physical stamina		
Willingness to take risks		
Self-confidence		
Self-discipline		
Sense of fashion		

Qualities for Success
Plan for Improvement

Personal traits I need to improve are the following:

My personal plan for improvement of these traits includes the following steps:

Lesson Plan

Sample

Lesson Title ______________________________ Date ____________________

Objective(s) ____

____

Instructional Activities

Focus:

Direct students' attention to a large poster illustrating an empty closet. Ask students to brainstorm for items a teenager would put in the closet. Explain the objective and purpose of the lesson.

Explanation and Modeling:

Present a brief illustrated lecture on wardrobe planning with the following outline:

- Identify needs
- Inventory what you have
- Sort and treat garments
- Try new combinations
- Plan for wardrobe additions

Illustrate lecture with transparencies and a sorting demonstration.
Involve students in class discussion by using the following questions:

- What is an adequate wardrobe?
- How can you build a wardrobe?
- Is the best dressed person the one with the largest wardrobe? Why?

Guided Practice:

Ask students to move into cooperative learning groups and plan a wardrobe for the next season for Jim who is a 15-year-old football player active in his church and able to spend an average amount on clothing. An elected group leader should record the plan for the group.

Closing:

Lead a class discussion on how well the groups functioned and on the usefulness of the steps in planning.

Independent Practice:

Ask students to inventory their wardrobes at home for the next season.

Resources:

Poster, clothing collection, transparencies, overhead projector

Adapted from a lesson plan by Dr. Patsy J. Hallman, Professor, Stephen F. Austin State University

Lesson Plan
Form

Lesson Title ______________________________ Date ____________________

Objective(s) ____

____

Instructional Activities

Focus:

Explanation and Modeling:

Guided Practice:

Closing:

Independent Practice:

Resources:

TA 13

Home Economists as Consultants

A **personal shopper** has been asked to meet with a community group to project colors and fashions for the next season.

An **image consultant** discusses with a group of teenage boys and girls the importance of creating a positive image.

A **bridal consultant** discusses with a future bride and groom the appropriate apparel for the wedding party.

A **wardrobe consultant** has been asked to talk with a group of senior citizens in a retirement village about "Stretching Your Wardrobe on a Limited Budget."

A **consultant** is working with the staff of a care center to design specialized garments for physically disabled individuals so that the care center residents can dress themselves more independently.

A **fashion trends consultant** is providing information to a retail apparel business to help them project the trends for the coming spring season before they go to market.

Traits of the Successful Entrepreneur

- Individualism and initiative
- A pioneering spirit
- Willingness to take a risk
- Desire for self-expression
- Persistence
- Creativity and inventiveness
- Technical knowledge of how to operate a business
- Ability to survive financially if emergencies occur
- Patience to wait until the business becomes successful
- Ambition, energy, and drive
- Ability to make decisions
- Ability to take full responsibility for decisions
- Realistic expectations about the amount and types of work required
- Ability to communicate

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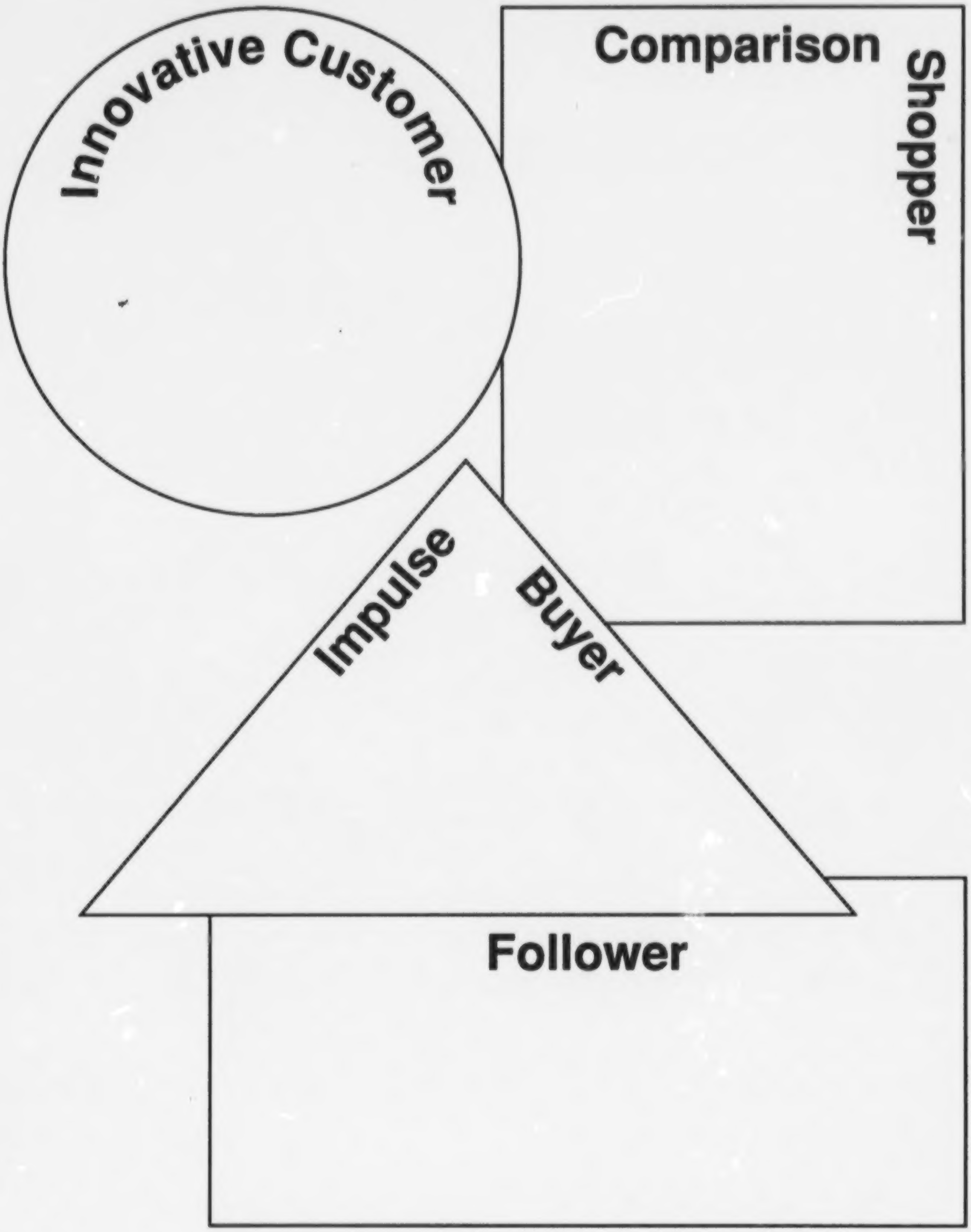
Types of Customers


Innovative Customer
Comparison Shopper
Impulse Buyer
Follower

TA 16

Attitudes

Select a word for each letter of the word *attitude*. Select words that relate to attitude.

A

T

T

I

T

U

D

E

Self-Improvement Plan

Complete the chart below by placing a √ in the appropriate column to indicate if you possess each personal characteristic. Identify strengths and weaknesses and describe a plan for improving weaknesses.

Personal Characteristics	**Yes**	**No**
on time when arriving at school		
well-groomed		
enthusiastic		
snobbish		
energetic		
friendly		
empathetic		
selfish		
committed to a task		
lazy		
cooperative		
disrespectful		
tactful		
courteous		
careless		
sincere		
sympathetic		
fair		
assertive		
generous		
creative		
dependable		
domineering		

TA 18

Rules of Conversation

Avoid talking too fast.

Do not be afraid of silence.

Pronounce words clearly.

Learn to listen to others.

Avoid total disagreement with customers when they express their opinions.

Avoid monopolizing a conversation by telling every detail of a story.

Be tolerant of the other person's point of view.

Character Traits

- *Friendliness*
  attitude that is warm and friendly
  atmosphere that is relaxed
  sense of cooperation among emloyees
- *Cheerfulness*
  ability to make others feel cheerful
  good sense of humor
  ability to stay busy
- *Courtesy*
  good manners
  respect and consideration for others
  consistent use of *please* and *thank you*
- *Tact*
  behaving appropriately for the occasion
  considering the customer's point of view
  avoiding gossip and criticism of others

Customer Complaints

A customer's bank card will not accept additional purchases. The customer refuses to leave the store until he is allowed to make a charge.

A customer complains about the store layout and selection of merchandise. She says there are not enough garments that fit her size.

A customer complains about advertising that states an item is available at a reduced price. When the customer arrives at the store, the store has sold all of the particular item the customer wanted.

A customer complains because service was not satisfactory.

A customer complains about the few employees available to service customers.

A customer purchases a garment and washes the garment following care instructions on the garment label. The garment shrinks. The customer is upset and wants to return the garment to the store.

Safety Rules

1. Report any personal medical information.

2. Observe safety rules and procedures.

3. Identify and report hazards such as property damage and unsafe and insecure conditions.

Standards for a Hazard-Free Environment

- protective devices for each point-of-operation
- guarding for any mechanical power-transmission machines
- electrical grounding of hand tools and other equipment
- mechanical or electrical methods for stopping textile machines
- devices to prevent machines from restarting automatically after a power failure
- prohibition on splices in electrical cords
- starting and stopping controls that prevent a worker's hand or fingers from touching any part of the machine
- insulation on steam pipes
- clean, obstruction-free aisles and work spaces
- maintenance of all guards, safety devices, and starting and stopping devices
- proper storage of flammables
- excessive noise levels and dust
- hazardous materials and lasers
- personal protective occupational safety equipment
- proper types and amounts of lighting
- safety valves on pressure-reducing valves used by laundries

Employee Responsibilities

- Read the OSHA poster at the job site.
- Comply with all applicable OSHA standards.
- Follow all employer safety and health rules and regulations, and wear or use prescribed protective equipment while working.
- Report hazardous conditions to the supervisor.
- Report any job-related injury or illness to the employer, and seek treatment promptly.
- Cooperate with the OSHA compliance officer conducting an inspection if he or she inquires about safety and health conditions in the workplace.
- Exercise rights under the Occupational Safety and Health Act of 1970 in a responsible manner.

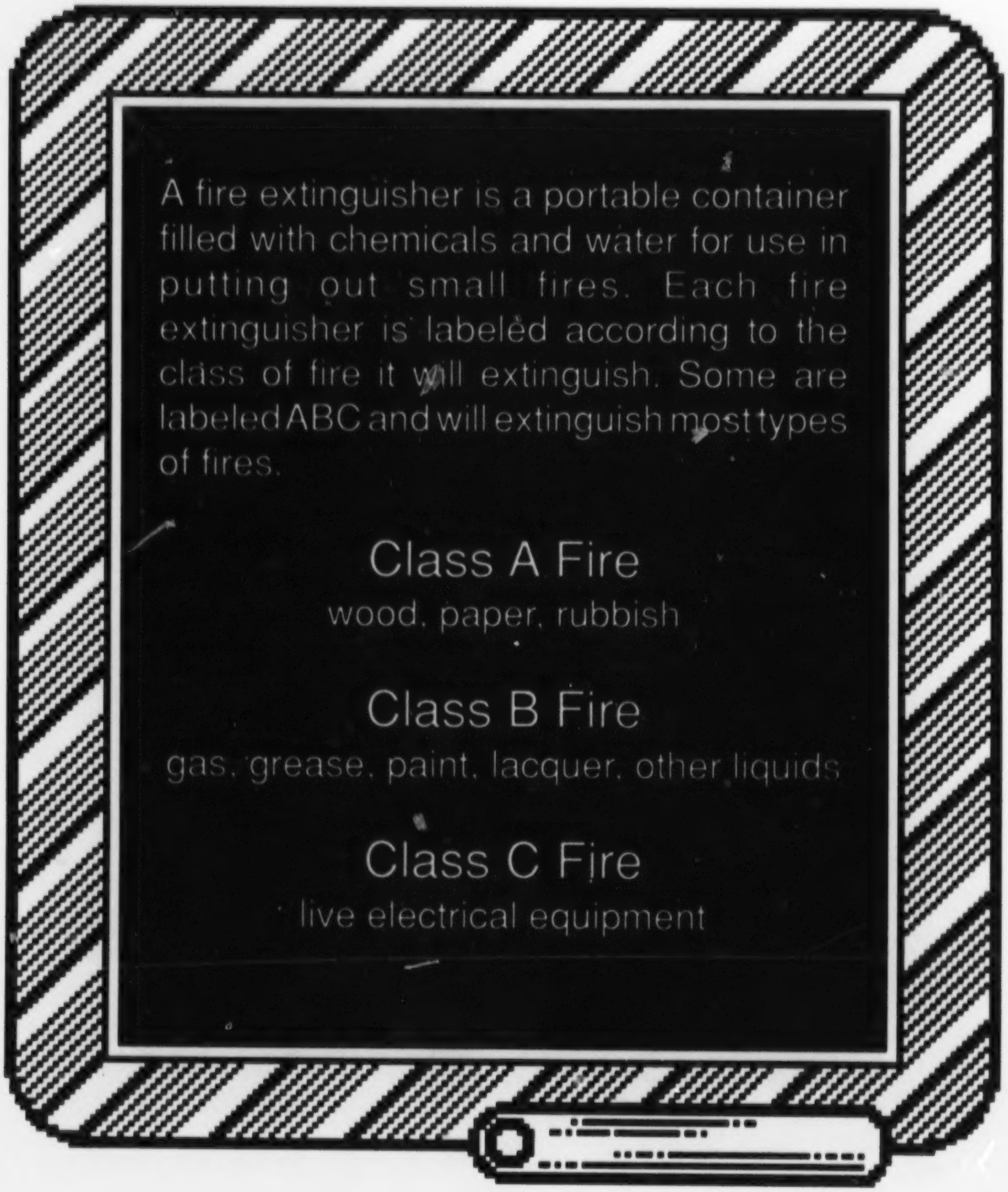
OSHA = Occupational Safety and Health Administration

TA 24

Fire Prevention Checklist

	Yes	No
Are the smoke detectors installed and working properly?		
Is electrical equipment away from walls, curtains, and other flammable materials?		
Are portable heaters in good repair and away from flammable materials?		
Is rubbish cleaned out and stored in proper trash cans?		
Are oily rags stored in closed metal container(s)?		
Are combustible materials stored outside?		
Are flammables away from furnace and other heat sources?		
Is outdoor electrical equipment weatherproofed?		
Are electrical cords in good repair?		
Are electrical plugs in good repair?		
Is electrical wiring overloaded?		
Are large appliances and electrical equipment grounded?		
Are correct-sized fuses being used?		
If there are gas appliances, are there any gas leaks?		
Is the furnace in good repair?		
Are the dryers free of lint?		
Are cleaning solvents handled properly?		

Classes of Fires



A fire extinguisher is a portable container filled with chemicals and water for use in putting out small fires. Each fire extinguisher is labeled according to the class of fire it will extinguish. Some are labeled ABC and will extinguish most types of fires.

Class A Fire

wood, paper, rubbish

Class B Fire

gas, grease, paint, lacquer, other liquids

Class C Fire

live electrical equipment

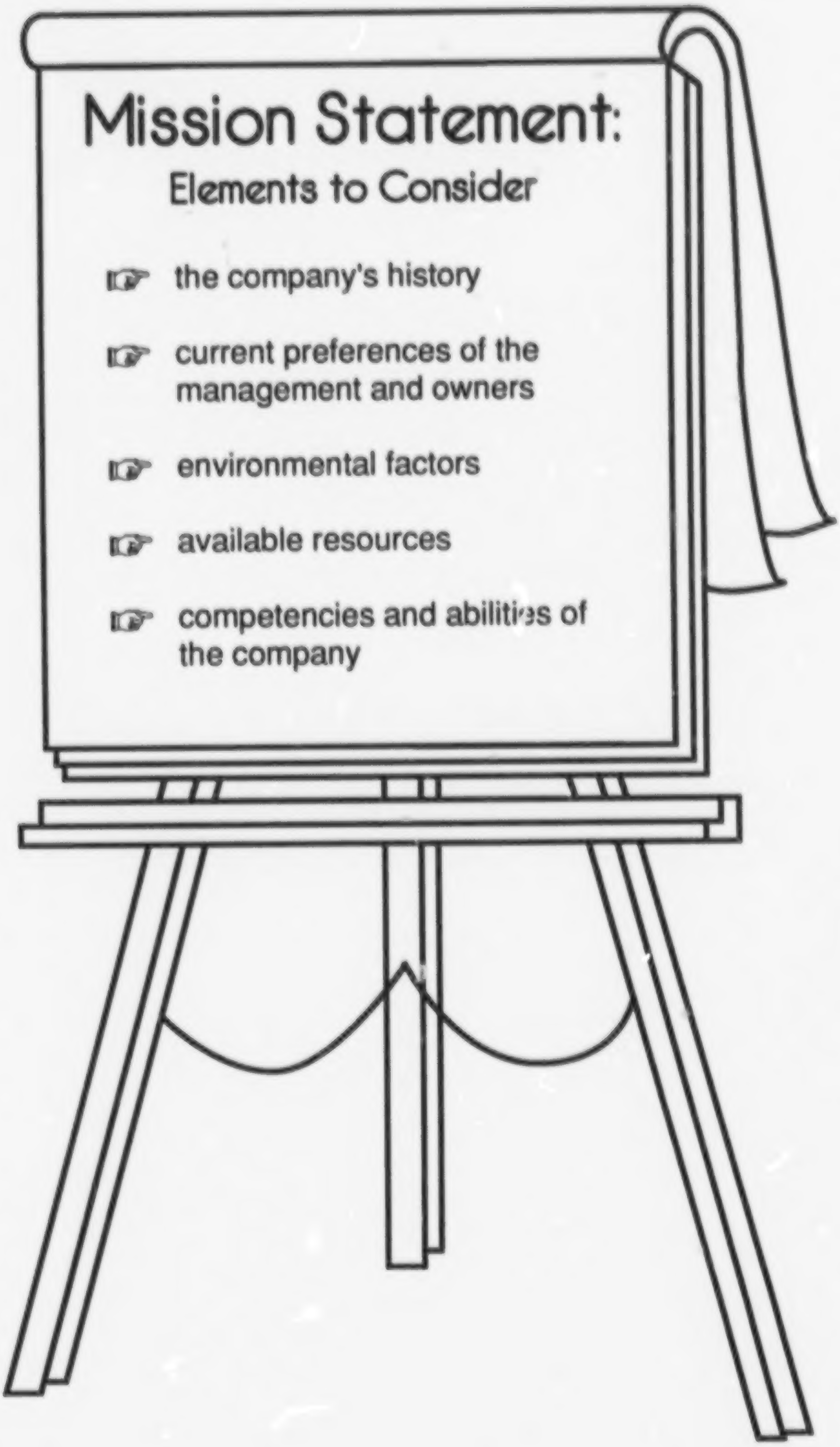
CPR Procedures

1. Begin first aid immediately.
2. Direct someone to call for a doctor or ambulance while first aid is being used.
3. Check for blockage of the air passage.
4. Apply a method of artificial respiration that is appropriate for the age of the victim.
5. Continue artificial respiration until breathing begins or until the victim is in the care of medical personnel.
6. Treat the victim for shock.
7. Get medical care, even if breathing is restored.

Burn Classifications

First Degree Burn	Skin is reddened but unbroken and should be treated by placing under cold water.
Second Degree Burn	Skin is reddened and blisters form. Skin should be treated by placing under cold water and then covering with dry, sterile dressing.
Third Degree Burn	Skin is partly destroyed and charring is present. Skin should be treated by covering entire area with dry, sterile dressing.

TA 28



Mission Statement:

Elements to Consider

- ☞ the company's history
- ☞ current preferences of the management and owners
- ☞ environmental factors
- ☞ available resources
- ☞ competencies and abilities of the company

TA 29

Performance Appraisal Form

Name ______________________ Position ______________

Department ________________ Date of Evaluation ______________

	Unsatisfactory	Needs Improvement	Good	Very Good	Outstanding	
1. Attendance, absenteeism, punctuality, remaining on job						Performance factors rated either *unsatisfactory* or *outstanding* must be explained individually.
2. Quality of work, accuracy, neatness, thoroughness, competence						
3. Work habits, following of safety rules, following of instructions						
4. Initiative, self-starter						
5. Dependability						
6. Relationship with others, cooperativeness						
7. Productivity, amount of acceptable work accomplished						
8. Adaptability, effectiveness in adjusting to new or different assignments						
9. Judgment, common sense						
10. Public contact, manner in dealing with and helping the public						
11. Communications, effective expression						
12. Planning and organizing work						
13. Supervisory ability, leadership						
14. Management ability, effective and economical management of department, division, or program						

Signature of Supervisor – This report is based on my observation and/or knowledge. It represents my best judgment of the employee's performance.

Supervisor's Signature ______________________ Date ______________

Employee Acknowledgment – I received this report and had the opportunity to discuss it with my supervisor. My signature does not necessarily mean that I agree with the report. I understand that I may attach comments.

Employee's Signature ______________________ Date ______________

Performance Appraisal
Case Study

Jeremy was employed almost three months ago by a retail department store. When he was hired as a salesperson, he learned that each new employee is on probation for three months. Since he is nearing the end of his probationary period, Jeremy will soon have a performance appraisal meeting with his supervisor.

During the last three months, the assistant supervisor has maintained an incident file on Jeremy's performance. The information in the file states that Jeremy has done the following:
- is consistently five to ten minutes late for work
- does not take breaks or lunch periods when he arrives late
- has a good relationship with customers
- displays a very professional attitude when selling
- has not been as conscientious as other employees in regard to stocking and keeping the sales floor uncluttered
- has produced better than average sales for new employees

On a separate sheet of paper, answer the following questions:

1. What are Jeremy's strengths?

2. What are Jeremy's weaknesses?

3. What recommendations could be made for improvement in Jeremy's overall job performance?

Disciplinary Action

Step Four

Dismissal, Suspension, or Probation

Step Three

Written Notice of Disciplinary Action

Step Two

Conference with Employee

Step One

Verbal Warning

Informal talk to establish an understanding of expectations

Helps determine if the employee understands the rules involved or standards of work expected

Ensures that the employee has received notice that performance or conduct has failed to meet the company's standards

Results in negative economic consequences and difficulty in finding another job

Submitting a Complaint to Management

Carmen has worked in an entry-level position as a marker for an apparel manufacturing company for three years. She has never submitted an official complaint to the company. However, management has changed during the past year. Carmen was promised a raise and a promotion to a position as a sewing machine operator. Carmen enrolled in night classes to perfect her sewing skills. The new management informed Carmen that she will not receive a promotion because her productivity has decreased. Carmen wishes to submit a complaint to management.

Donald is working for the second year for a retail department store. Following his one-year appraisal, Donald asked if he could be scheduled to work more day hours and fewer evenings and weekends. Donald's supervisor agreed that he could work more day hours. Donald is remaining patient, but for the last two months he has worked no hours during the day and has continued to be scheduled to work both Saturday and Sunday. Donald tried to discuss the problem with his supervisor. However, the supervisor said that Donald must work one more year before the work schedule can be changed.

History of Minimum Wage

Dates	Minimum Wage	Dates	Minimum Wage
January 25, 1950	$ .75	January 1, 1976	$ 2.30
March 1, 1956	1.00	January 1, 1978	2.65
September 3, 1961	1.15	January 1, 1979	2.90
September 3, 1963	1.25	January 1, 1980	3.10
February 1, 1967	1.40	January 1, 1981	3.35
February 1, 1968	1.60	April 1, 1990	3.80
May 1, 1974	2.00	April 1, 1991	4.25
January 1, 1975	2.10		

Compensation Plans

Straight Commission

Janice works in an apparel retail store and earns straight commission. Last month Janice sold $18,500 worth of merchandise. Janice is paid 8% of the volume she sells. How much did Janice earn last month?

Salary Plus Commission

Martin works in an apparel manufacturing business as a sewing machine operator. He earns $4.25 per hour plus $50.00 for every 200 garments he completes in one month. Last month Martin worked 160 hours and completed 400 garments. How much did Martin earn?

Salary Plus Commission-Over-Quota

Bill is employed in sales at a textiles firm. He earns $5.25 per hour plus $50.00 for every $300 in sales over a quota of $500. Last week Bill worked 45 hours and sold $1,100 worth of merchandise. How much did Bill earn?

Straight Salary

Lupe works in a home furnishings retail store as a display designer. She earns an hourly salary of $5.85. If Lupe works 40 hours each week, what is her salary for one week?

Answers: Janice earned $1,480 last month; Martin earned $780 last month; Bill earned $336.25 last week; Lupe earns $234 per week.

TA 35

Silk

- strongest natural fiber
- more resiliency than cotton or flax
- wrinkle resistant
- absorbs moisture
- can be easily dyed
- deteriorates from exposure to sunlight
- loses strength with age
- burns readily when exposed to a flame
- strong acids destroy

Animal Fiber Experiments

Student Form

Burning Test Directions: From each woven fabric sample, select one or two yarns. Untwist yarn(s) at one end leaving fibers in a loose mass. Hold the opposite end of the yarn(s) using small tweezers. Slowly move the fibers toward a candle flame. Observe the reaction while approaching the flame. Place fibers in the flame for one or two seconds, watching the reaction carefully. Remove the fibers from the flame. Immediately note the odor. Check the color and firmness of the ash or residue. Record observations in the appropriate spaces.

Fiber	Reaction/ Approaching Flame	Reaction/ In Flame	Reaction/ Removal from Flame	Odor	Ash
Wool					
Silk					

Acetone Test Directions: From each fabric sample, remove one fiber approximately 1" long. Place a small amount of acetone in a watch glass which is set on a dark surface. Place the fiber in the acetone. Observe the reaction of the fiber for approximately 5 minutes. Record observations in the appropriate spaces.

Fiber	Immediately After Placing in Acetone	5 Minutes After Placing in Acetone	Reaction
Wool			
Silk			

Bleach Test Directions: From each fabric sample, remove one fiber approximately 1" long. Place a small amount of bleach in a watch glass which is set on a dark surface. Place the fiber in the bleach. Observe the reaction of the fiber for approximately 5 minutes. Record observations in the appropriate spaces.

Fiber	Immediately After Placing in Bleach	5 Minutes After Placing in Bleach	Reaction
Wool			
Silk			

Animal Fiber Experiments

Teacher Guidelines

Various tests are used to identify fibers including burning, exposure to chemicals, and observation under a microscope.

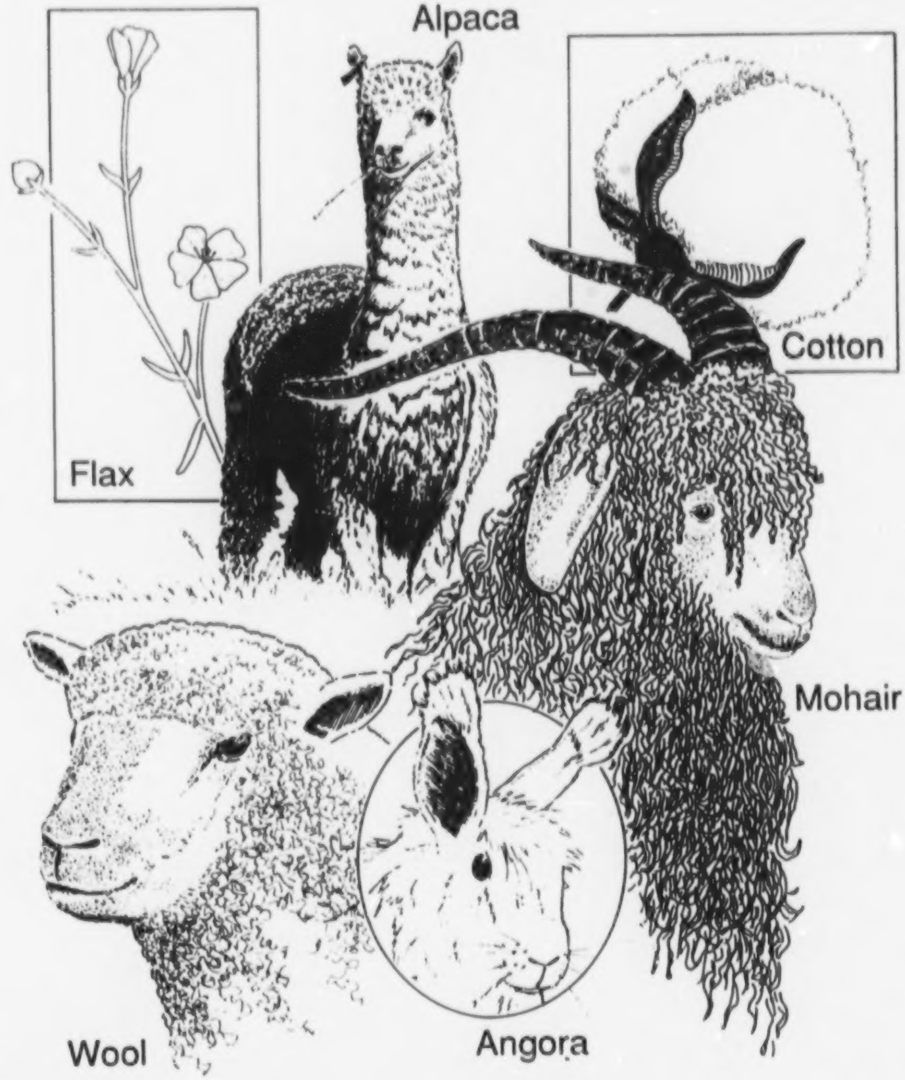
Burning does not specifically identify fibers but suggests how to care for fabrics and indicates the group within which a fiber fits such as animal or vegetable fibers. It is best to use only fabric samples composed entirely of one fiber type for burning tests since blended fibers react differently depending on the fiber composition. The flammability and the burning characteristics of a fabric can also be altered by dyes and finishes.

Observe safety when performing experiments to prevent injury to people or damage to property. Having equipment and supplies prepared and organized helps prevent distractions that can lead to safety hazards. Giving students complete instructions before they perform experiments also helps prevent accidents.

The chart below includes example reactions of fibers to burning. The examples are provided for the teacher's use in guiding students prior to conducting experiments and in evaluating laboratory experiments. Before beginning experiments, provide example reactions so students will be prepared to record observations. Reinforce the similarities in the reactions of wool and silk to the tests. Emphasize that these similarities indicate the two fibers belong to the same group, animal fibers.

Fiber	Reaction/ Approaching Flame	Reaction/ In Flame	Reaction/ Removal from Flame	Odor	Ash or Residue
Wool	curls away from flame	burns slowly	self-extinguishing	similar to burning hair	brittle, small black bead
Silk	curls away from flame	burns slowly & sputters	usually self-extinguishing	similar to burning hair	beadlike, crushable, black

Sources of *Natural Fibers*


Alpaca
Flax
Cotton
Mohair
Wool
Angora

Cotton Production

On the map below, shade the states or regions of the United States that are primary cotton-producing areas.

Which states are primary cotton-producing states?

What type of climate is best for growing cotton?

Vegetable Fiber Experiments

Student Form

Burning Test Directions: From each woven fabric sample, select one or two yarns. Untwist yarn(s) at one end leaving fibers in a loose mass. Hold the opposite end of the yarn(s) using small tweezers. Slowly move the fibers toward a candle flame. Observe the reaction while approaching the flame. Place fibers in the flame for one or two seconds, watching the reaction carefully. Remove the fibers from the flame. Immediately note the odor. Check the color and firmness of the ash or residue. Record observations in the appropriate spaces.

Fiber	Reaction/ Approaching Flame	Reaction/ In Flame	Reaction/ Removal from Flame	Odor	Ash
Cotton					
Ramie					
Linen					

Acetone Test Directions: From each fabric sample, remove one fiber approximately 1" long. Place a small amount of acetone in a watch glass which is set on a dark surface. Place the fiber in the acetone. Observe the reaction of the fiber for approximately 5 minutes. Record observations in the appropriate spaces.

Fiber	Immediately After Placing in Acetone	5 Minutes After Placing in Acetone	Reaction
Cotton			
Ramie			
Linen			

Bleach Test Directions: From each fabric sample, remove one fiber approximately 1" long. Place a small amount of bleach in a watch glass which is set on a dark surface. Place the fiber in the bleach. Observe the reaction of the fiber for approximately 5 minutes. Record observations in the appropriate spaces.

Fiber	Immediately After Placing in Bleach	5 Minutes After Placing in Bleach	Reaction
Cotton			
Ramie			
Linen			

Vegetable Fiber Experiments

Teacher Guidelines

Refer to the general information on Teaching Aid 36b for general guidelines for conducting experiments.

Observe safety when performing experiments to prevent injury to people or damage to property. Having equipment and supplies prepared and organized helps prevent distractions that can lead to safety hazards. Giving students complete instructions before they perform experiments also helps prevent accidents.

The chart below includes example reactions of fibers to burning. The examples are provided for the teacher's use in guiding students prior to conducting experiments and in evaluating laboratory experiments. Before beginning experiments, provide example reactions so students will be prepared to record observations. Reinforce the similarities in the reactions of cotton, ramie, and linen to the tests. Emphasize that these similarities indicate the two fibers belong to the same group, vegetable fibers.

Fiber	Reaction/ Approaching Flame	Reaction/ In Flame	Reaction/ Removal from Flame	Odor	Ash
Cotton	does not shrink away; ignites easily	burns quickly	continues burning; afterglow	smell of burning paper	gray; light & feathery
Ramie	does not shrink away; ignites easily	burns quickly	continues burning; afterglow	smell of burning paper	gray; light & feathery
Linen	does not shrink away; ignites easily	burns quickly	continues burning; afterglow	smell of burning paper	gray; light & feathery

TA 40

Steps in the Production of Manufactured Fibers

Change a raw material into a thick liquid or solution

⇩

Add additives such as color or special finishes to solution

⇩

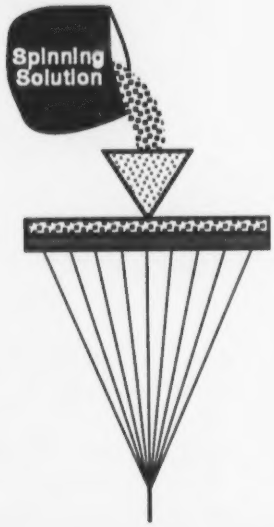
Force liquid or solution through small holes of a spinneret

⇨

Filaments harden as they are extruded from spinneret

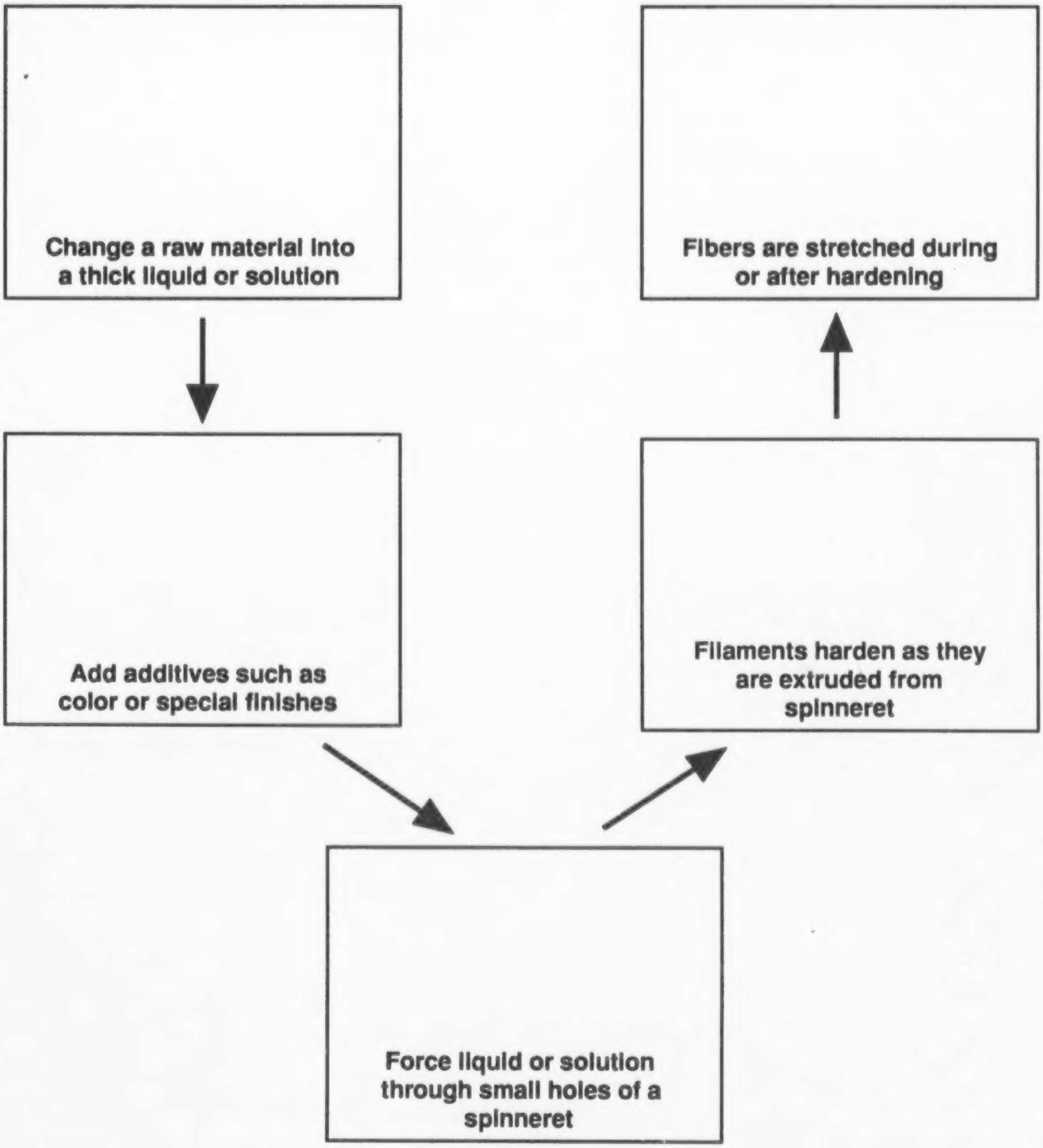
⇧

Fibers are stretched during or after hardening



Producing Manufactured Fibers

For each step in the process of producing manufactured fibers, draw a sketch or illustration.



Change a raw material into a thick liquid or solution

Add additives such as color or special finishes

Force liquid or solution through small holes of a spinneret

Filaments harden as they are extruded from spinneret

Fibers are stretched during or after hardening

TA 42a

Manufactured Fibers

Generic Name	**Brand Names**	**Characteristics**
Acetate	Celanese Chromspun Estron Loftura Estron	
Acrylic	Acrilan Creslan Orlon Zefran	
Nylon	Crepeset Monvelle Qiana Zefran	
Polyester	Dacron Fortrel Kodel Trevira	
Rayon	Avril Coloray Softglo Zantrel 700	
Spandex	Glospan Lycra Monvelle	

Manufactured Fibers

Answers

Generic Name	Brand Names	Characteristics
Acetate	Celanese Chromspun Estron Loftura Estron	lustrous finish; shrink resistant; resistant to sunlight and perspiration; mildew resistant; withstands damage from moths; lacks strength; hangs well; dry clean
Acrylic	Acrilan Creslan Orlon Zefran	lightweight; warm; wrinkle resistant; sunlight resistant; shape bounces back; surface may pill; static electricity buildup
Nylon	Crepeset Monvelle Qiana Zefran	lustrous finish; strong; shrink resistant; moisture resistant; mildew resistant; easily laundered; static electricity buildup; strong sunlight causes damage
Polyester	Dacron Fortrel Kodel Trevira	strong; shape bounces back; moisture and mildew resistant; easily laundered; holds creases and pleats that have been heat-set; not resistant to oily stains; sensitive to heat
Rayon	Avril Coloray Softglo Zantrel 700	cool to wear; lacks strength; sensitive to heat; absorbs moisture; subject to sunlight damage; mildews; wrinkles
Spandex	Glospan Lycra Monvelle	lightweight; strong; perspiration resistant; sensitive to heat; stretches

TA 43

Fabric Absorption Tests

Conduct the following absorption tests on fabric samples and record the results on the chart below.

- Place the rayon fabric sample in an embroidery hoop.
- Hold an eyedropper half filled with water 3/8" above the sample.
- Drop one drop of water on the fabric.
- With a stopwatch, time the length of time required for the drop of water to be absorbed.
- Repeat the experiment on the nylon fabric sample.

Fabric	Absorbency Time
Rayon	
Nylon	

Note: Good absorbency requires less than five seconds wetting time; poor absorbency requires more than five seconds wetting time.

Experiments with Manufactured Fibers

Conduct the experiments as described. Use the chart on the following page to record observations.

Heat

Hold an iron on each fabric swatch and describe the effect. Using tweezers, unravel fibers from each fabric swatch. Hold the fibers over an open flame. Describe how the fibers burn or melt and describe the odor and/or residue left.

Bleach

Using an eyedropper, place a drop of bleach on each fabric swatch. Observe any changes and record the results.

Detergent

Select a powdered or liquid laundry detergent that does not contain bleaches or brighteners. Dissolve a small amount of detergent in water and hand wash each fabric swatch. Allow the swatches to air dry. Record the results.

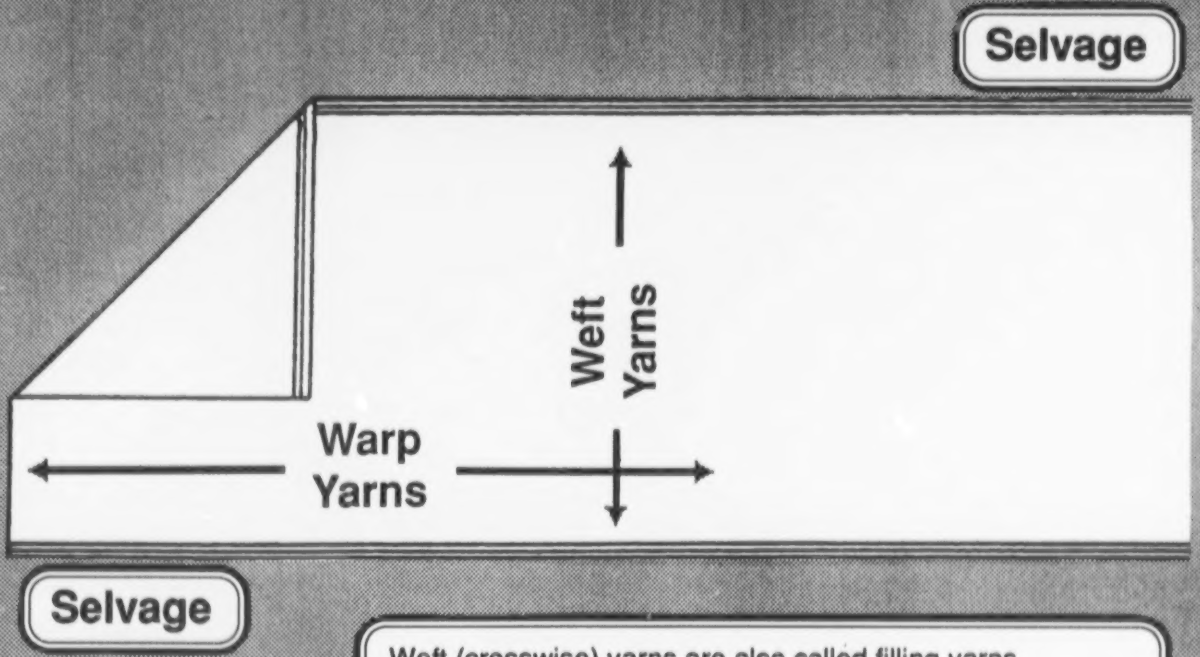
Moisture/Mildew

Thoroughly moisten and wrinkle each fabric swatch. Store each swatch in a plastic bag. Allow some air in the bag and place the bag in direct sunlight or in any hot, humid location for approximately two days. Record the results.

Experiments with Manufactured Fibers

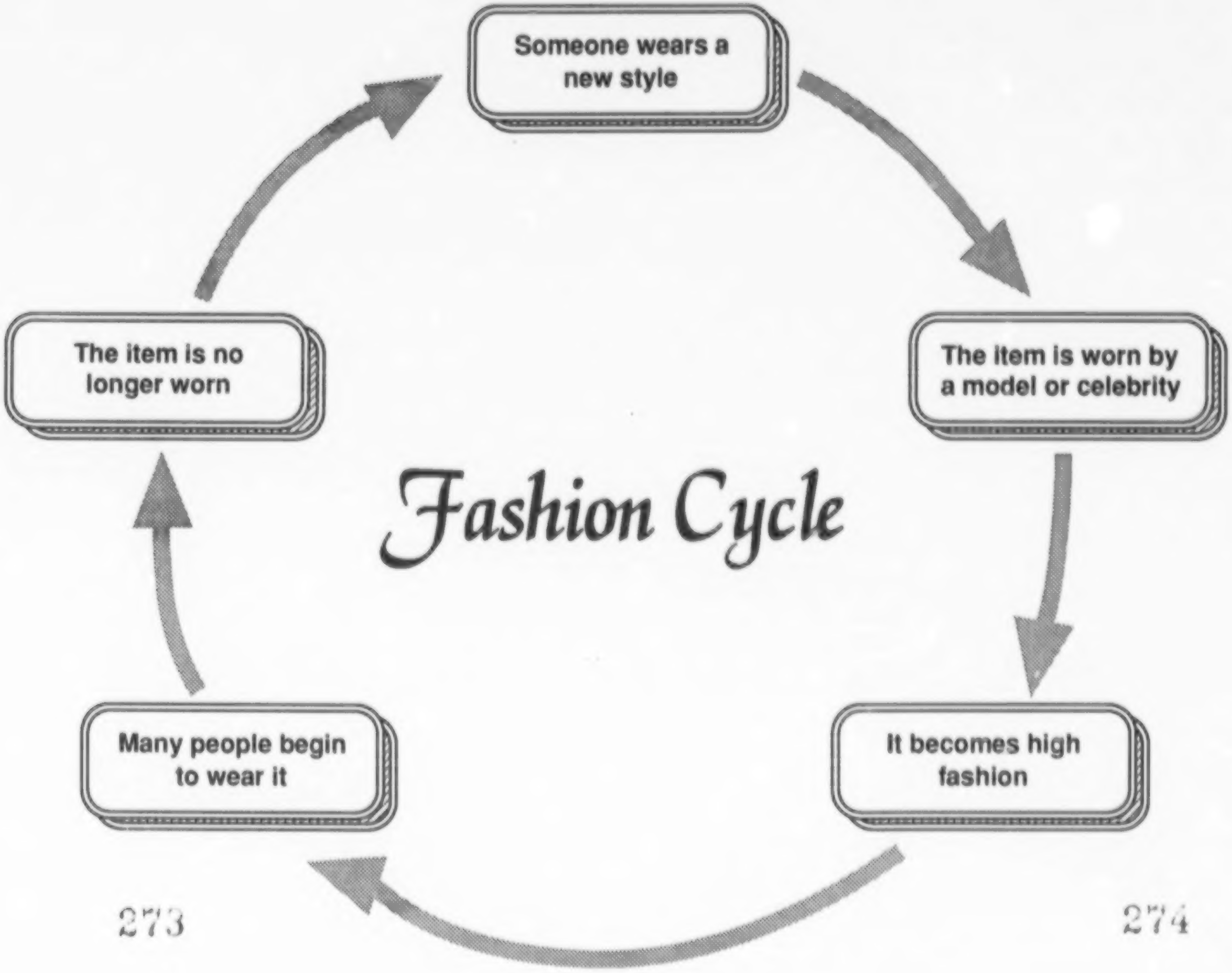
Fiber	Heat	Bleach	Detergent	Moisture/ Mildew	Descriptive Notes
Acetate					
Acrylic					
Nylon					
Polyester					
Rayon					
Spandex					

Woven Fabrics


Selvage
Weft Yarns
Warp Yarns
Selvage

Weft (crosswise) yarns are also called filling yarns.
Warp yarns are lengthwise yarns.
The selvage is a narrow woven edge that prevents raveling.

Fashion Cycle



Someone wears a new style

The item is worn by a model or celebrity

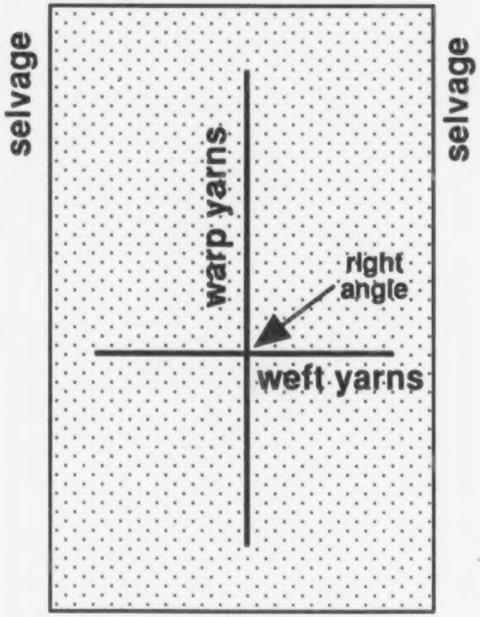
It becomes high fashion

Many people begin to wear it

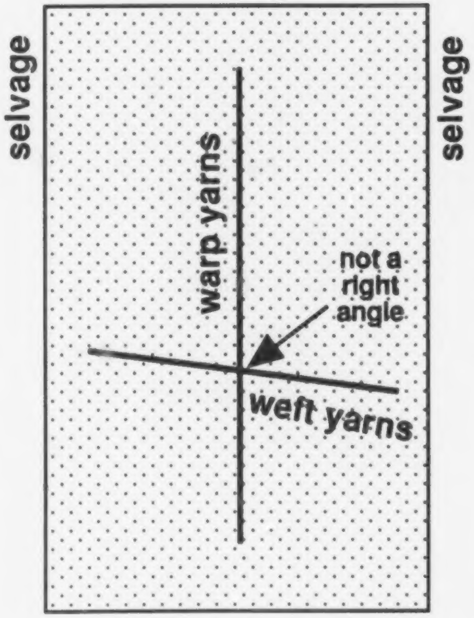
The item is no longer worn

Grain

On-Grain Fabric


selvage
selvage
warp yarns
right angle
weft yarns

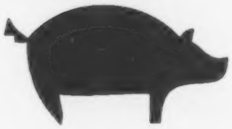
Off-Grain Fabric

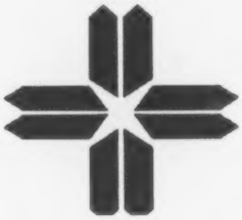

selvage
selvage
warp yarns
not a right angle
weft yarns

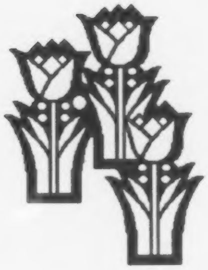
TA 48

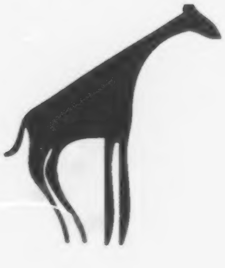
Example Fabric Motifs

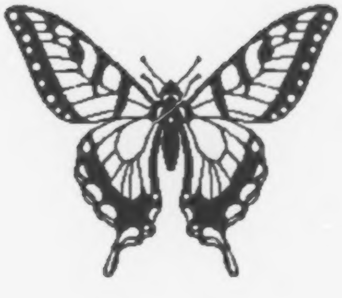
A motif is one design printed on a fabric. The designs below are example motifs. Each motif could be printed on a fabric in various colors and sizes.



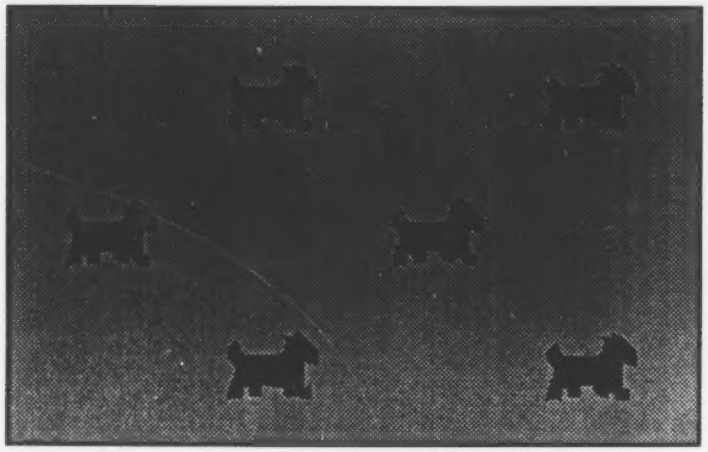




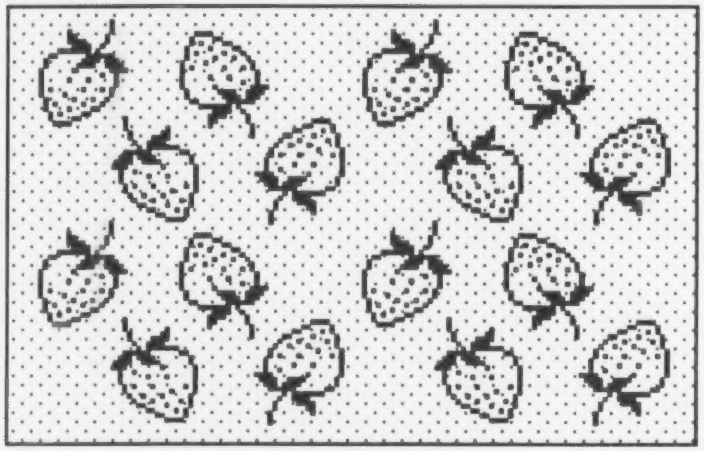




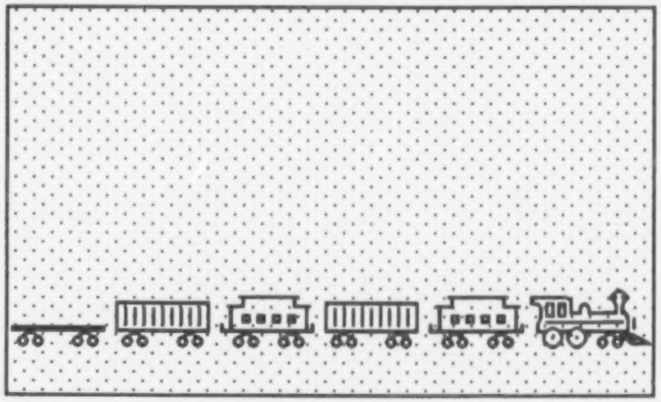
Directional Prints



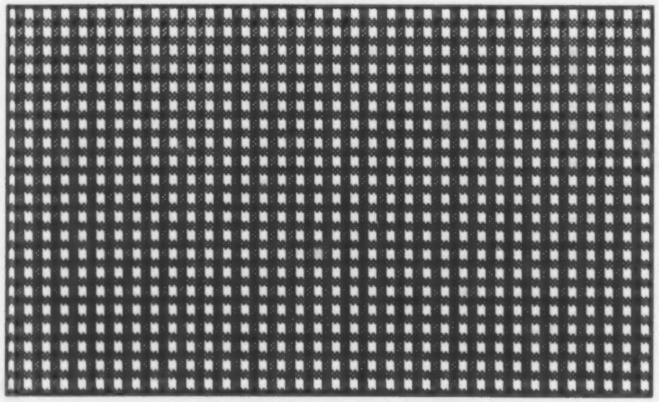
One-Way Print



Two-Way Print



Border Print



Plaid Design

Napped, Sueded, and Pile Fabrics

Napped fabric is created by rubbing the surface of the fabric with a rough instrument.

Sueded fabric has a texture as a result of fiber ends being brushed up onto the surface of the fabric.

Pile fabric has cut and uncut loops that stand up densely on the surface.

Select 3 fabrics from the following list. Record information in the space provided to describe the fabric samples.

Fabrics

cotton velveteen
velvet
suede
Ultrasuede®
pinwale corduroy
large-wale corduroy
terrycloth

	Fabric 1	Fabric 2	Fabric 3
Fabric Name			
Fabric Hand			
Fabric Appearance			
Appropriate Types of Garments			
Overall Opinion			

TA 51

Selecting Shaping Fabrics

✔ Choose the correct fabric weight.

✔ Select fabric of the proper finish and texture.

✔ Choose fabric of an appropriate stiffness and flexibility.

✔ Select shaping fabric that cleans and shrinks like the fashion fabric.

✔ Choose a color of shaping fabric that blends well with the fashion fabric.

Interfacing

Definition

a piece of shaping fabric used to shape a section of a garment

Placement

between the facing and the garment to add firmness to an area and help an area retain its shape

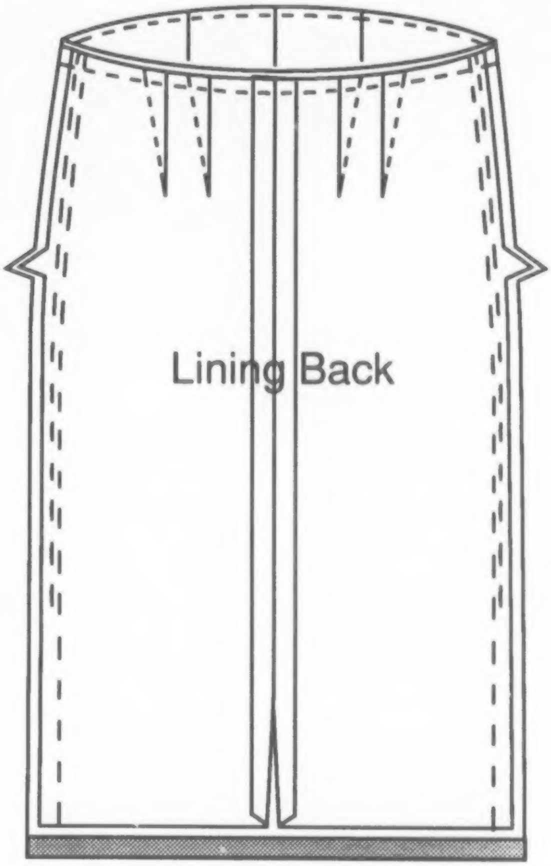
Uses

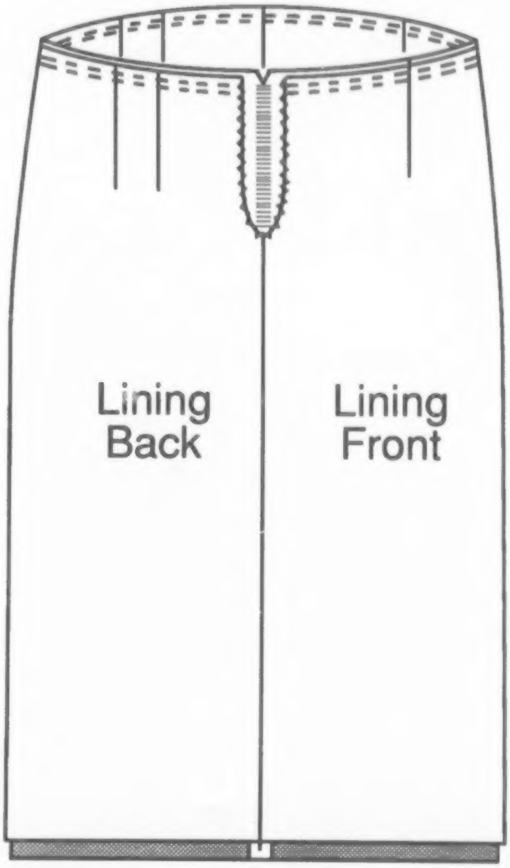
along garment edges, in collars, in cuffs, in waistbands, and in pockets

Types

knitted, woven, or nonwoven
light, medium, or heavy in weight
fusible or nonfusible

Lining


Lining Back


Lining
Back
Lining
Front

Estimating Yardage

- ▲ Use the chart on the back of the pattern envelope to estimate fabric needed.
- ▲ Remember to note the with nap and without nap yardage.
- ▲ If unsure about the amount of fabric required, lay pieces on a cutting table.
- ▲ Check to see if contrasting fabric, interfacing, lining, elastic, or trims are needed.
- ▲ Decide if the pattern requires special design placement.
- ▲ Use a fabric conversion table to help in calculating required yardage.

What Thread and Needle Should Be Used?

Marcus is constructing a shirt made of 100% cotton fabric. What type of thread should he use? What machine needle should he use?

1

Terry is making a half-slip as a project in her apparel class. What type of thread and machine needle should she use?

2

Members of the FHA/HERO chapter are finishing a quilt for a charitable organization. What thread and hand needle should be used?

3

Rosie and James are repairing a braided rug in the school library. What thread should they use? What hand needle should they use?

4

Juan is completing an embroidery project. What type of thread and needle should be used for embroidery?

5

Answers: 1. general purpose, medium-thick cotton thread and a medium size machine needle 2. extra-fine thread and a size 9 ballpoint sewing machine needle 3. quilting thread and a general, between needle 4. button and carpet thread and a curved needle 5. embroidery floss and a crewel needle

Elements of Design
Line

Definition

- Lines used in design have characteristics of direction, length, width, and straightness.
- Lines may be straight (vertical, horizontal, or diagonal) or curved, and both types may be combined in one design.

Application

- Structural lines are created by use of seams and darts to give shape and to form a silhouette.
- Decorative lines may be created through use of fabric texture or fabric design or may be added by using trim, accessories, or stitching.

Elements of Design
Shape/Form

Definition

- Shape/form involves the silhouette formed by the outline of a clothing design.

- The silhouette is often considered the most important design line in clothing.

Application

- The three classic silhouettes are the bell, tubular, and back fullness silhouettes.
- By studying a person's shadow, the general silhouette of a garment can be seen.
- A garment silhouette should be chosen to compliment a body shape.

Elements of Design
Space

Definition

- Space is the background against which forms or shapes are seen.
- Space may be used to emphasize or camouflage physical characteristics.
- Space provides a relief from looking at a pattern on a clothing design.

Application

- The space between patterns on a garment can help create an illusion of size. For example, a widely spaced print fabric may appear more like a solid fabric than a print with closely spaced patterns. The two prints create different illusions of body size.

Elements of Design
Texture

Definition

- Texture is found in the fabric thickness and on the fabric surface.

- Texture is the look and feel of a fabric, resulting from the way the material is made.

Application

- Various words are used to describe texture including fuzzy, smooth, rough, sheer, ribbed, coarse, and bulky.

- Texture can be used to create illusions about size. For example, a rough, thick-textured sweater can cause a small person to appear larger.

- Prints can create a texture illusion.

Elements of Design
Color

Definition

- Color is the aspect of clothing which is most often noted and remembered.
- The color wheel is used to show characteristics of colors (hue, value, and intensity), to create different colors, and to develop color schemes/color plans.

Application

- Colors suggest different qualities. For example, black can seem heavy and dignified.
- Colors and color combinations can be used to make a person appear larger or smaller. For example, warm colors, extreme values, and intense colors can cause people to look larger than they are.
- Colors can be used to emphasize some features and draw attention away from others. For example, a person might draw attention to a small waist by wearing a contrasting belt.

Guidelines for *Selecting Clothing*

☐ A garment with a centered, vertical line adds height and slims the figure.

☐ Parallel, vertical lines force the eye to travel around the figure adding height and width to the figure.

☐ An asymmetrical or off-centered vertical line adds height and cuts the weight of the figure.

☐ A T-line adds less height than a single vertical line and is a good choice for a tall person.

☐ An arrow line adds height and narrows the shoulders. It is a good choice for a short, broad-shouldered person.

☐ A Y-line adds height and width to narrow shoulders and looks attractive on full figures.

☐ Diagonal lines add interest and eye appeal and slenderize the figure.

☐ Horizontal lines make any figure appear shorter and heavier.

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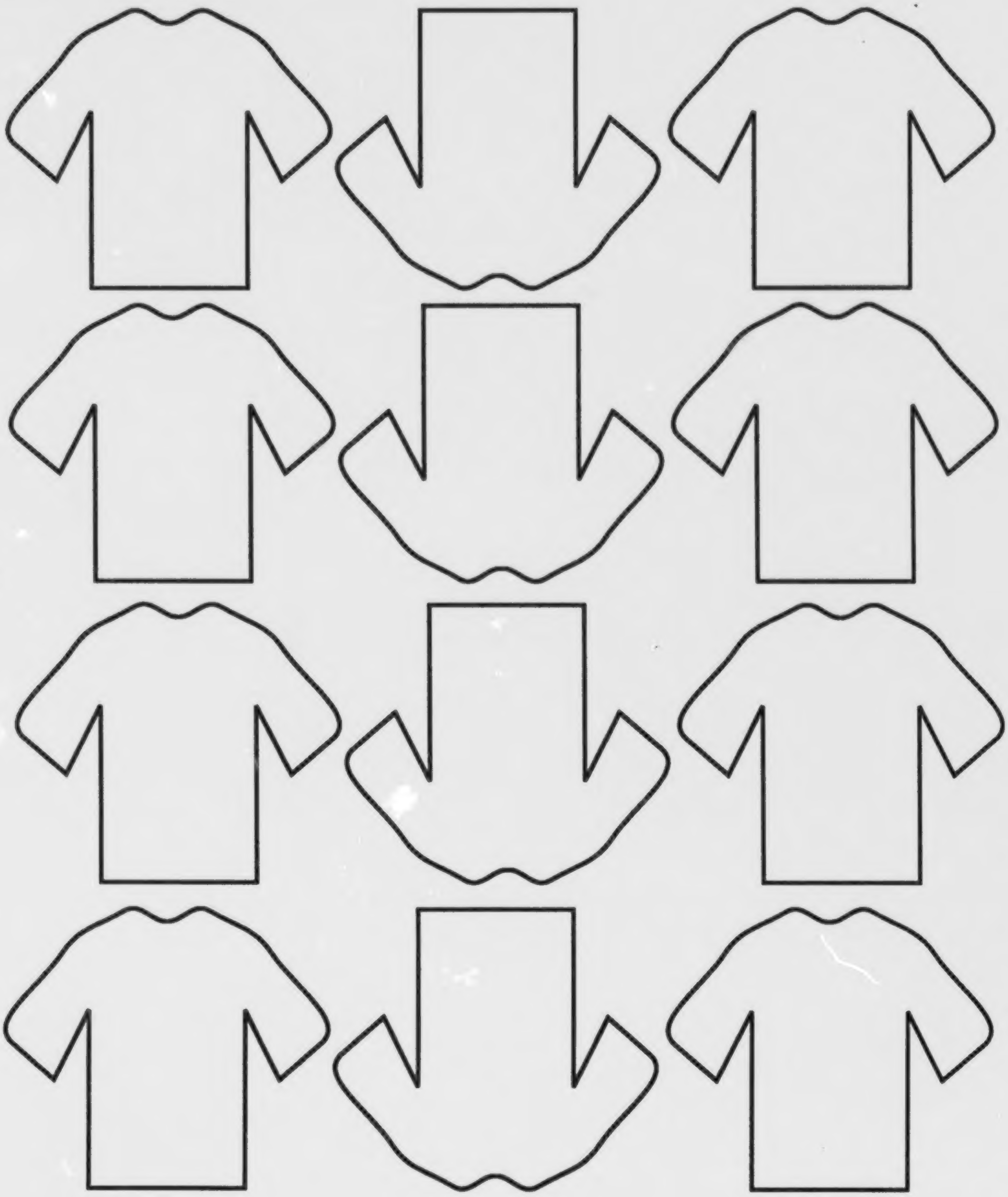
Create a
Color Wheel

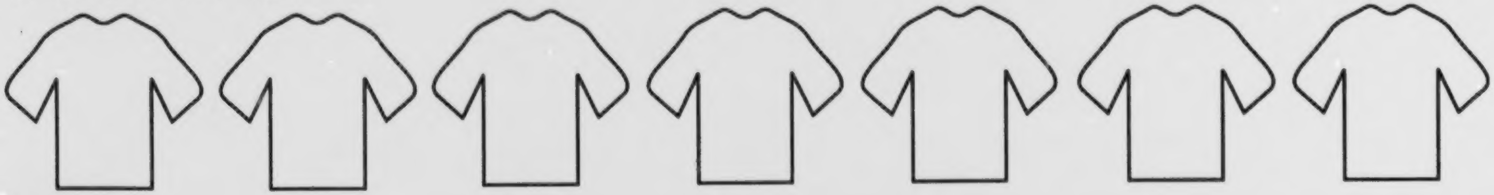
Use colored pencils or markers to color each T-shirt a different color from the color wheel. Cut the T-shirts apart and create a color wheel by placing the T-shirts in the correct locations in a circle.



Create a
Value Chart

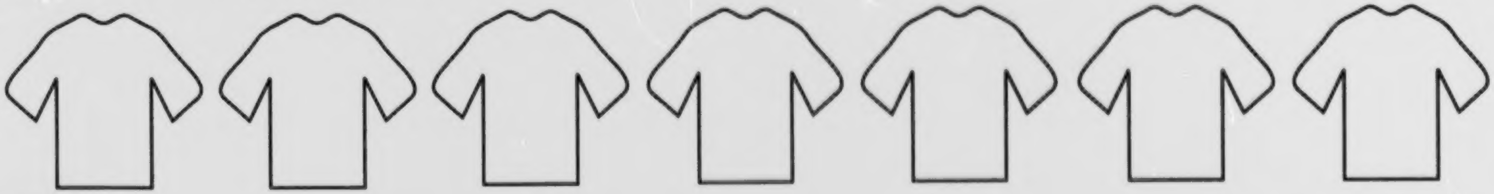
Tints

Paint one T-shirt with the basic hue selected. Add a small, measured amount of white paint to the basic hue. Mix well. Paint the second T-shirt with the new tint. Continue adding the same measured amount of white, mixing the paint, and painting the remaining T-shirts with the new tints.



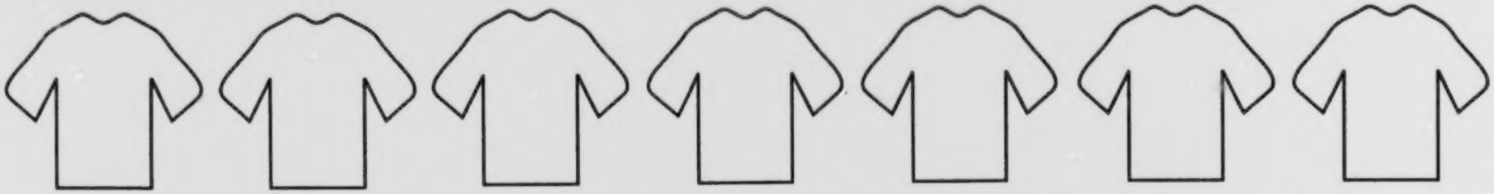
Shades

Paint one T-shirt with the basic hue selected. Add a small, measured amount of black paint to the basic hue. Mix well. Paint the second T-shirt with the new shade. Continue adding the same measured amount of black, mixing the paint, and painting the remaining T-shirts with the new shades.



Tones

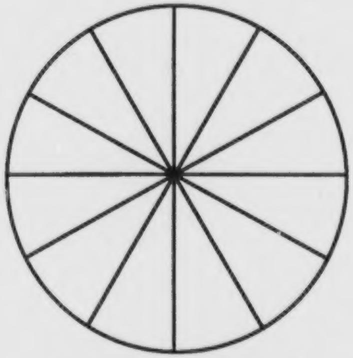
Paint one T-shirt with the basic hue selected. Add equal, measured amounts of white and black paint to the basic hue. Mix well. Paint the second T-shirt with the new tone. Continue adding the same measured amounts of white and black, mixing the paint, and painting the remaining T-shirts with the new tones.



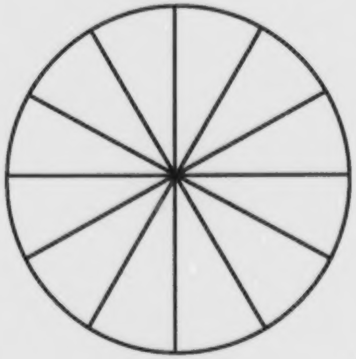
Create

Color Schemes

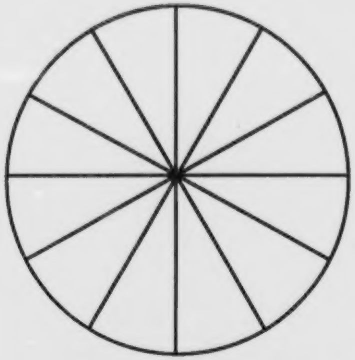
Select one basic hue from the color wheel. Using the selected hue, create each of the identified color schemes by placing the appropriate hues in the correct locations on each wheel. Use colored pencils, markers, or paints to create the color schemes.



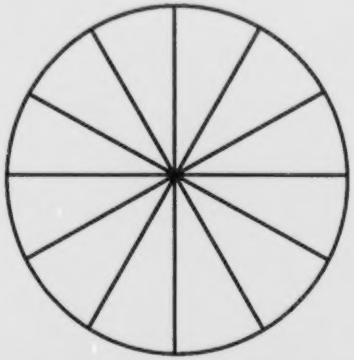
Monochromatic



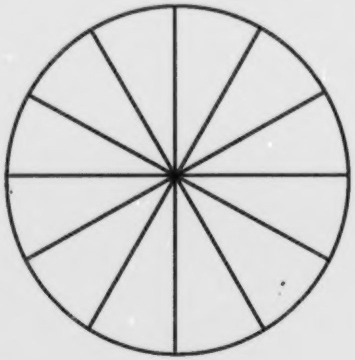
Analogous



Complementary



Split Complementary



Triad

Psychological Effects of Color

Identify the first color that comes to mind when you hear the term. . .

birthday
Christmas
Halloween
Russia
happy
sad
funeral
detention
honors assembly
graduation
Statue of Liberty
New York City

caboose
July
test
homework
50th Anniversary
Saturday
Monday
wedding
hospital
basketball game
homecoming
principal's office

Principles of Design
Balance

Definition

- Balance is the arranging of design parts to create a feeling of rest and equilibrium.
- Formal balance (symmetrical) – The design is the same on each side of the design center.
- Informal balance (asymmetrical) – The design is balanced but is different on each side of the design center.

Application

- Formal – A vest with no closure and pockets of the same size and in the same place on either side.
- Informal – A vest with a button closure down the center and one pocket.

Principles of Design
Proportion

Definition

- Proportion refers to the relationship of parts to each other and to the design as a whole based upon the division of space.
- All parts of the design look good together.

Application

- Clothing should simulate ideal body proportions. For example, a long-waisted person should wear a garment that is not fitted at the waistline.

Principles of Design
Rhythm

Definition

- Rhythm refers to the illusion of motion as the eye moves easily from one part of the design to another.
- A pleasing design arrangement.

Application

- Repetition of lines or shapes in a design creates rhythm.

Principles of Design
Emphasis

Definition

- Emphasis is created when attention is drawn to a certain part of a design.
- The center of interest dominates the design.

Application

- Emphasis is created by contrast in texture, color, and line or by use of unusual shapes, textures, and colors.

Principles of Design
Harmony/Unity

Definition

- Harmony/unity is created when all parts of the garment work together to create a pleasing, whole design.
- The garment and the body appear to be well-suited for each other.

Application

- Appropriate applications of balance, proportion, rhythm, and emphasis create harmony/unity.

Eight Classes of Stitches

100 – chain stitch

200 – hand stitch

300 – lock stitch

400 – multi-thread chain stitch

500 – overedge stitch

600 – flat seam stitch

700 – single thread lock stitch

800 – simulated hand stitch

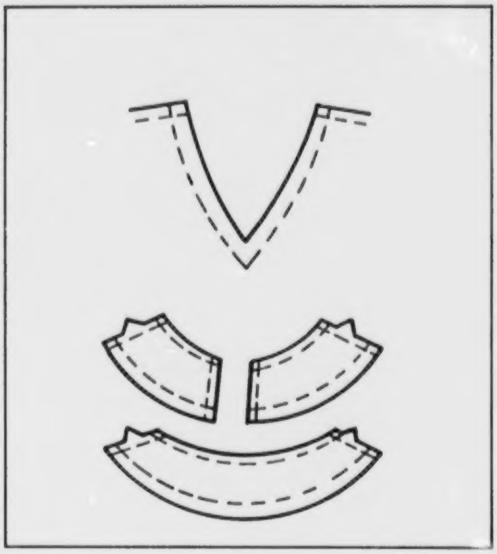
The Perfect Seam

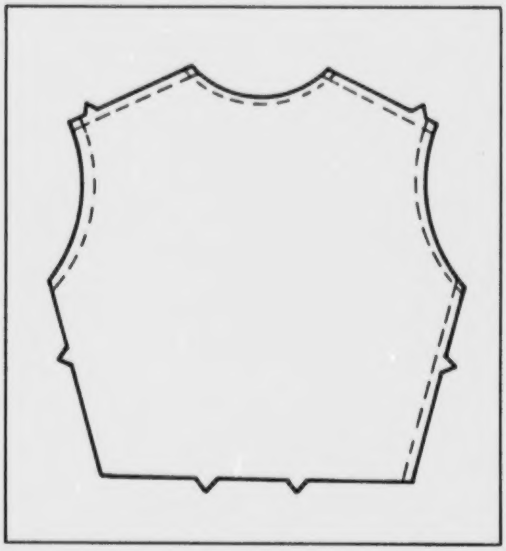
The perfect seam is one that is not puckered, stretched, or crooked and is finished without tangled threads. The smooth appearance is the result of careful machine control.

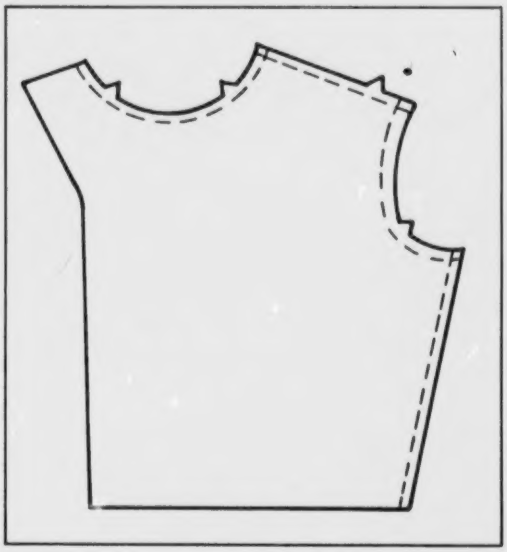
Good machine stitching has the following characteristics:

- ✓ **Stitching is smooth.**
- ✓ **Seams begin and end at exactly the appropriate points.**
- ✓ **Stitch length and tension are appropriate for the fabric.**
- ✓ **The stitches are the same size.**
- ✓ **There are no skipped or broken spots in stitching.**
- ✓ **Stitching does not cause the fabric to be off-grain due to stretching.**
- ✓ **The upper and lower threads are locked between the layers of fabric.**
- ✓ **Repaired seams appear as one line of stitching.**

Staystitching







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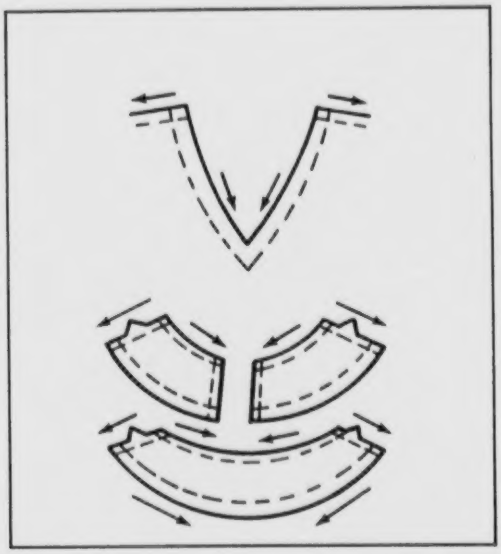
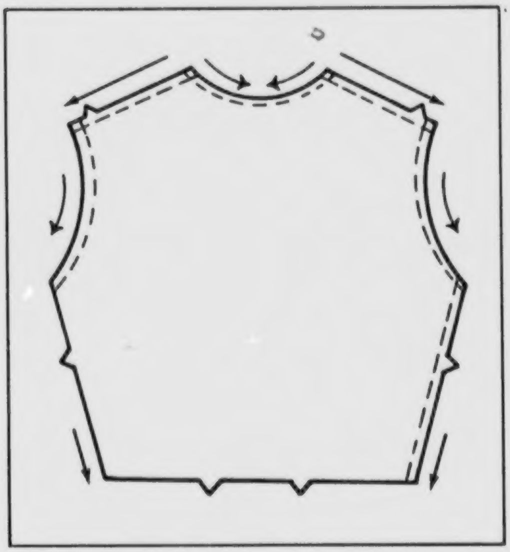
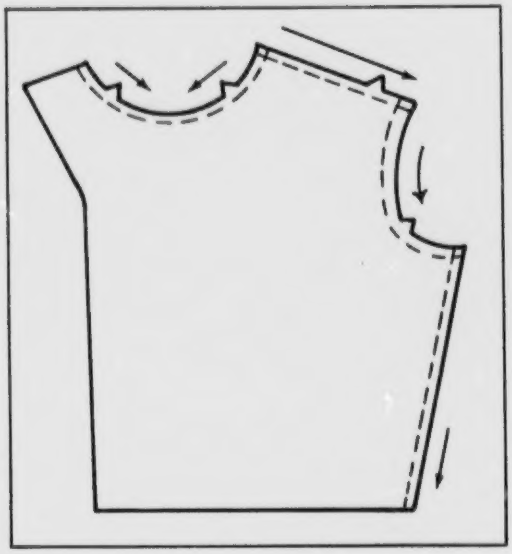
Staystitching







Corners, Points, and Inserts

Points

A point is an angle of less than ninety degrees.

Corners

A corner is an angle of ninety degrees or more. The process of turning a corner while stitching is called pivoting. To pivot, the following steps should be used:

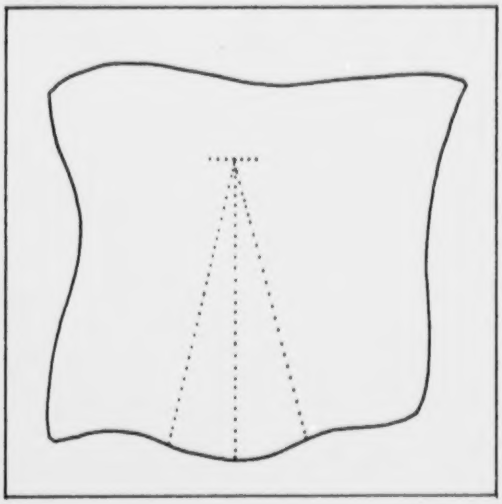
- Sew to the corner, stopping exactly at the corner.
- Leave the needle in the fabric if using a lock stitch machine.
- Leave the needle at its highest point if using a chain stitch machine.
- Raise the presser foot.
- Swing the fabric around the corner.
- Finish stitching the seam.

Inserts

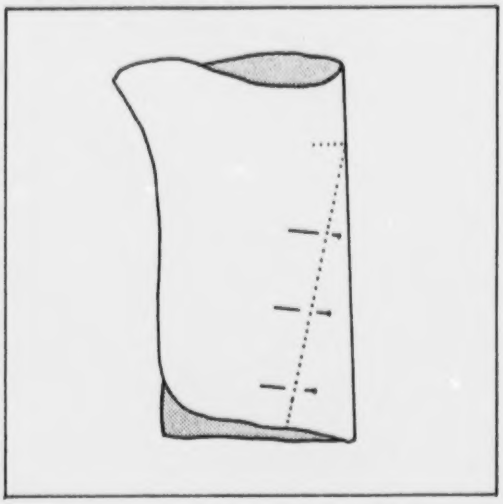
Inserts are items that include labels, loops, and tabs that are sewn on top of, on the bottom of, or between plies of fabric.

Single-Pointed Darts

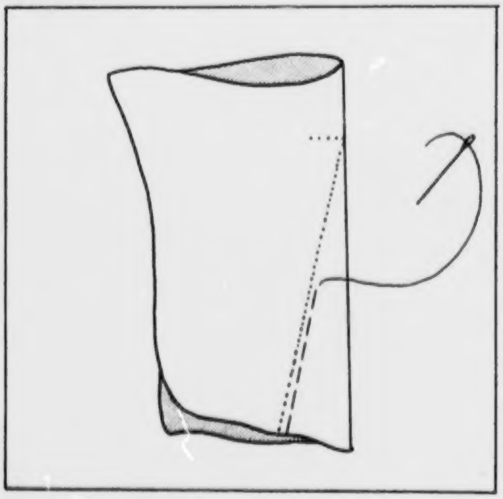
Mark



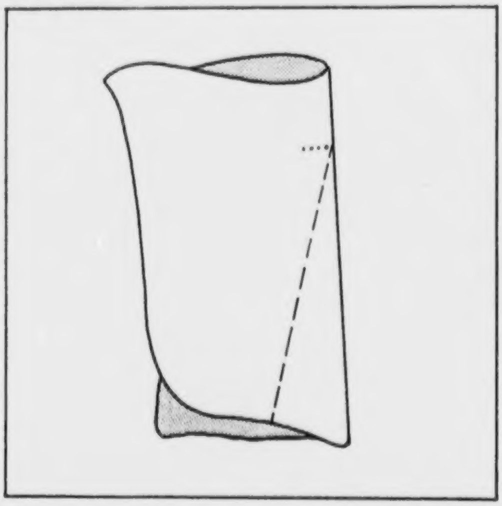
Fold and Pin



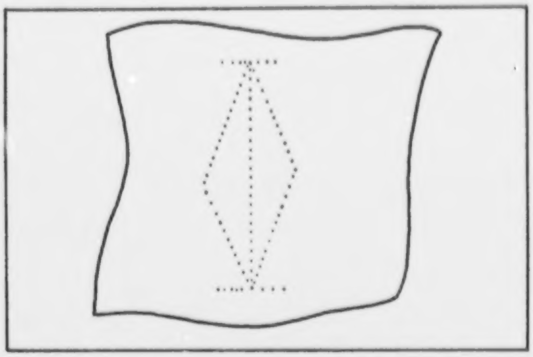
Baste



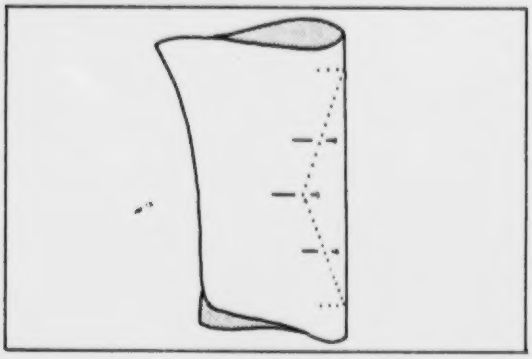
Stitch



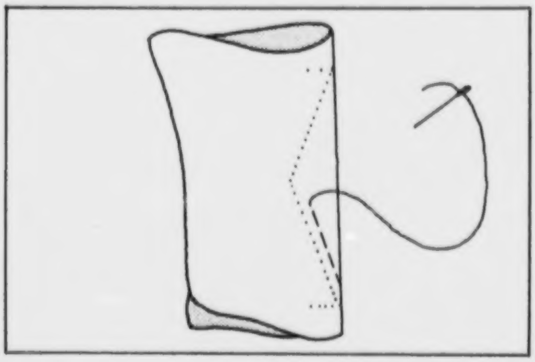
Double-Pointed Darts



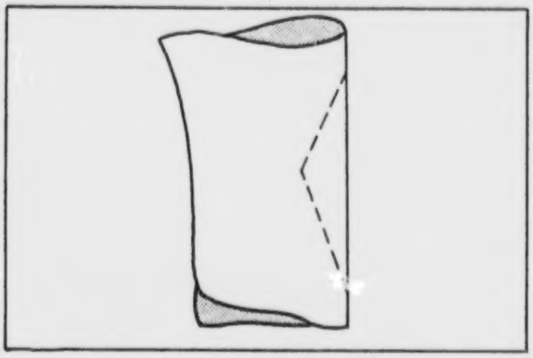
Mark



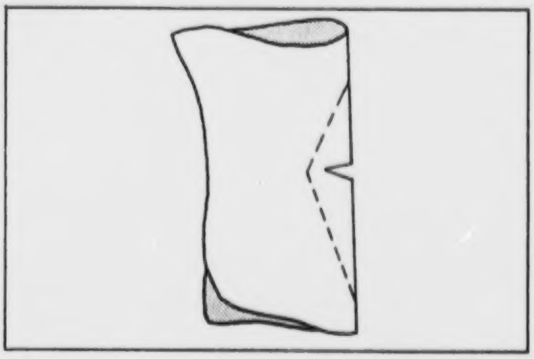
Fold and Pin



Baste



Stitch



Clip

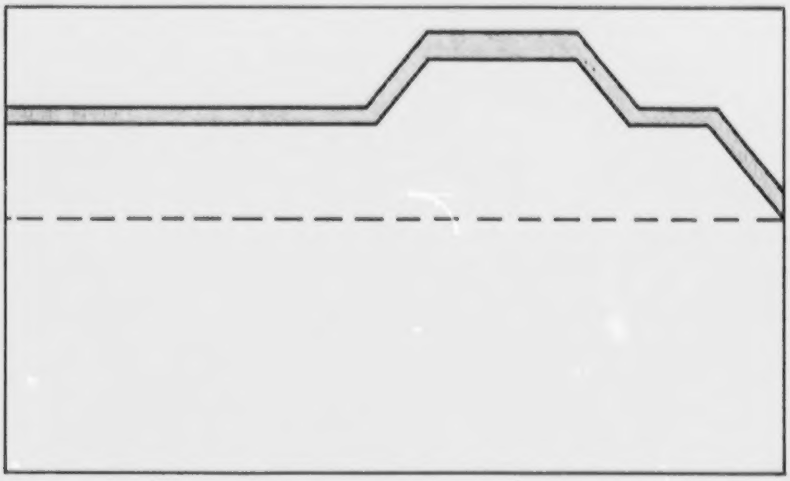
Straight Seam

Fabric edges and seam line are perfectly straight.

Plies are the same length with edges even.

The seam is sewn the required width.

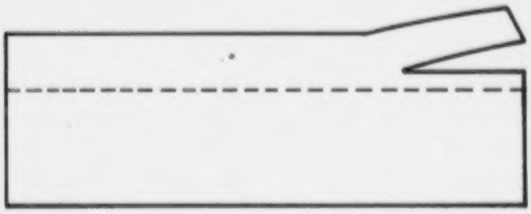
The seam does not pucker.



Techniques Used in Seam Construction

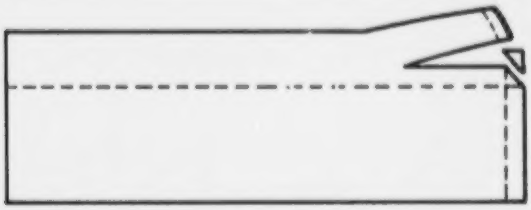
- ✂ Position at least two plies of fabric with one on top of the other and the edges even.
- ✂ Place the needle at its highest position to begin stitching.
- ✂ Raise the presser foot enough to position the work even with the needle hole.
- ✂ Lower the presser foot.
- ✂ Grasp the edge of the fabric nearest the seam to be sewn.
- ✂ Pull the thumb back as the hands and the fabric move toward the needle, leaving just the index finger to hold the fabric tightly.
- ✂ Move the hand in a straight line between the body and the sewing machine needle.
- ✂ Start the machine slowly, feeding fabric evenly.
- ✂ Stop the sewing machine and reposition the hands when necessary.
- ✂ Slow down at the end of the seam to prevent sewing off the fabric and damaging the sewing machine.
- ✂ Stop sewing with the needle and the take-up lever in their highest positions.
- ✂ Raise the presser foot slightly and release the fabric.
- ✂ Pull the work away in the appropriate direction and break or clip the threads.

Trimming, Grading, Clipping, and Notching

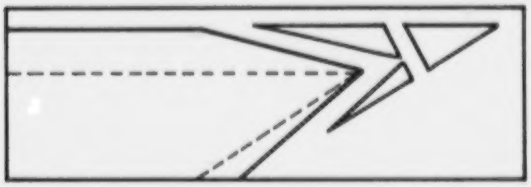


TRIMMING

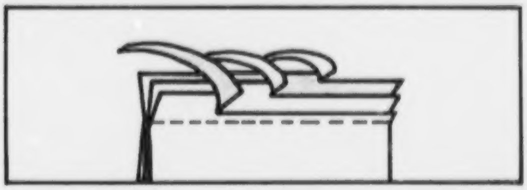
Trim seam allowances.



Cut diagonal corners
from ends of seam.

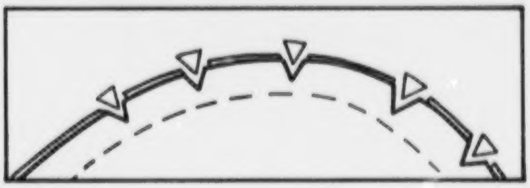


Trim
corners of enclosed seams.



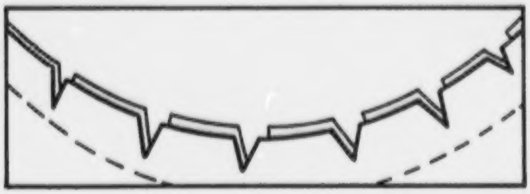
GRADING

Trim layers to different widths.
This prevents ridges.



CLIPPING/NOTCHING

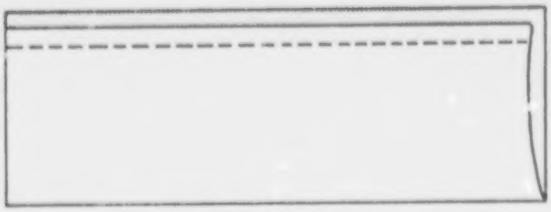
CONVEX CURVE
Cut small notches from seam
allowance at even intervals.



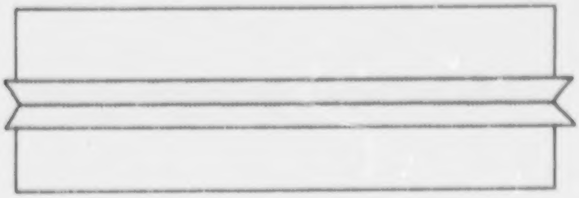
CONCAVE CURVE
Clip into seam allowance
at even intervals.

Welt Seam

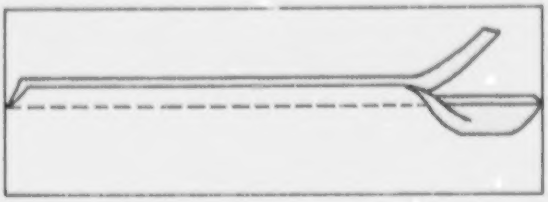
Stitch on seamline.



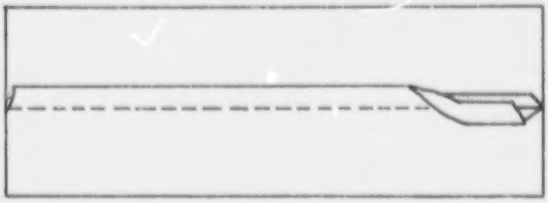
Press seam open.



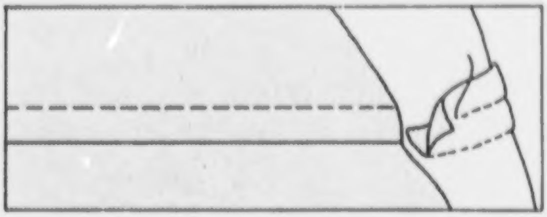
Trim one
seam allowance to 1/4".



Press wider seam allowance
over trimmed edge.



Stitch on right side of fabric.



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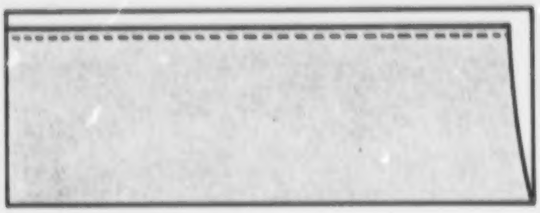
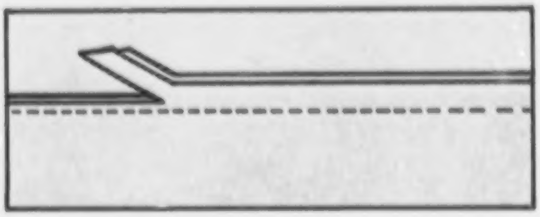
French Seam

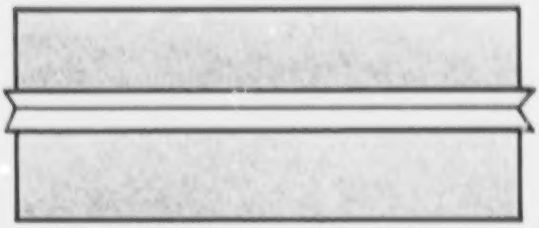
Stitch 3/8" from edge.



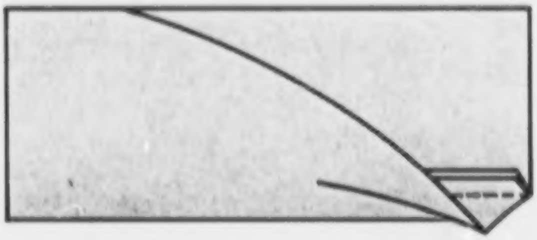
Trim seam allowances to 1/8".



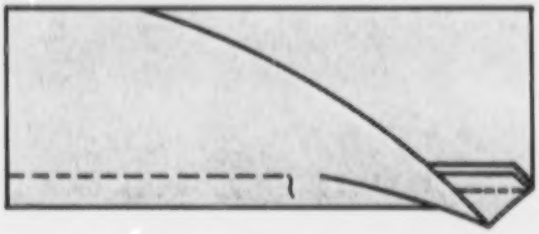
Press seam open.



Fold right sides together.

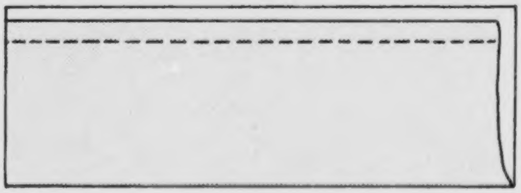


Stitch on seamline.

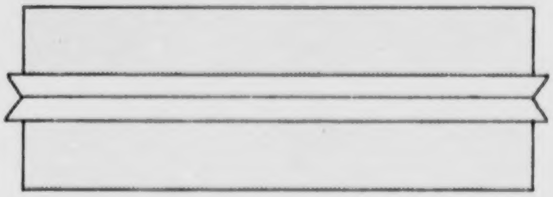


Flat-Felled Seam

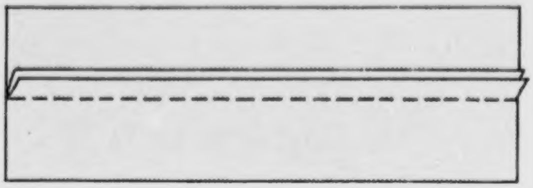
Stitch on seamlines
(wrong sides together).



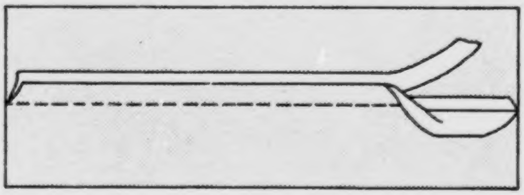
Press seam open.



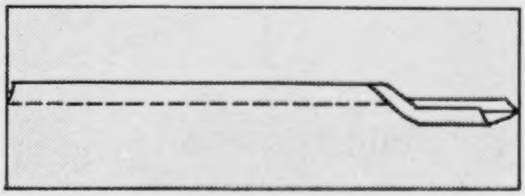
Press seam to one side.



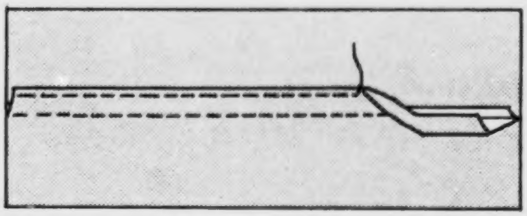
Trim
inner seam allowance to 1/8".



Press under
outer seam allowance to 1/4".



Stitch.



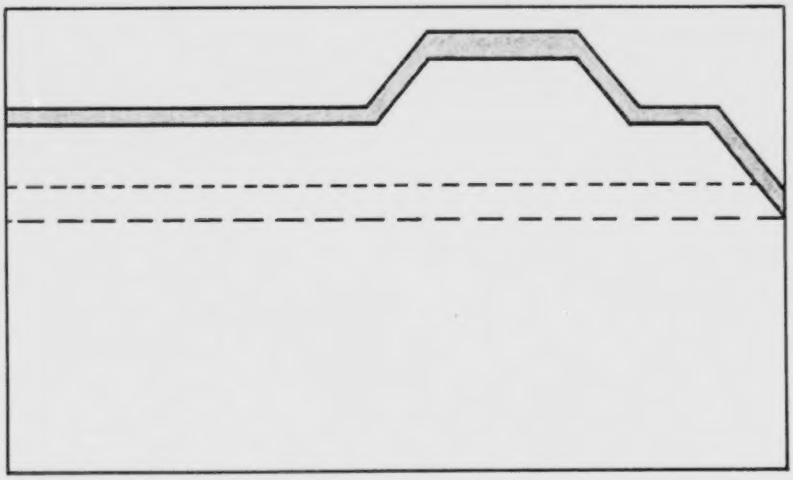
Double-Stitched Seam

Stitch a plain seam.

Trim the seam allowances to 1/4".

Complete the seam with a row of straight stitches 1/8" from the first row of stitching.

Use zigzag stitching when sewing with lightweight woolens or knits.



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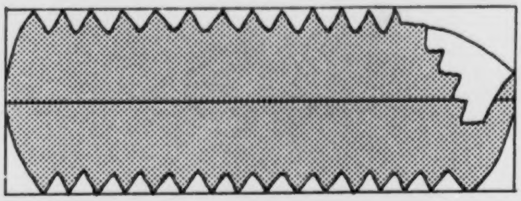
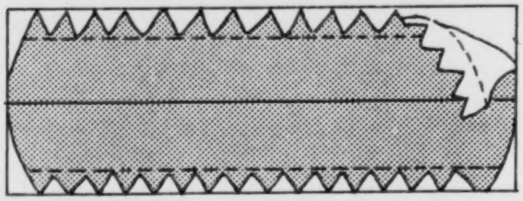
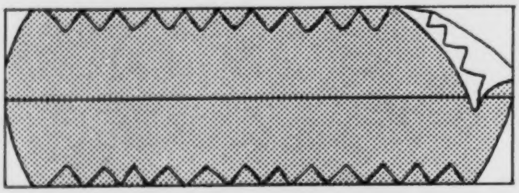
Seam Finishes



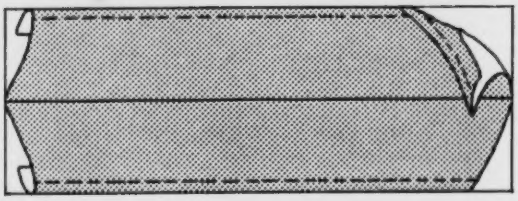
Pinked



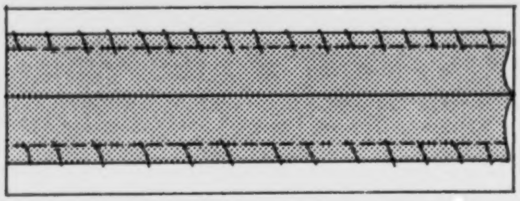
Pinked and Stitched



Zigzag



Clean Finished



Hand-Overcast

Tips for Hand Stitching

- Chose the right size needle for the type of fabric and thread.
- Use a single 18" to 24" length of thread, coated with beeswax for added strength and slipping ease.
- Cut the thread at a slant and never break, bite, or tear it.
- Thread the cut end through the needle and knot it.
- Wear a thimble on the second finger of the sewing hand.
- Keep stitches fairly loose to avoid a puckered or tight look.
- Fasten the thread in the fabric by taking a few small backstitches or by making a knot at the end of the thread and hiding it on the wrong side of the fabric.
- Use either backstitching or knotting to end stitching.

Hand Stitch Case Studies

Read each case study carefully and select an appropriate answer. Support each answer with a brief paragraph.

Michael has finished construction on a pair of pants. All that remains is the hemming. Michael would like to use a hem stitch that does not show. What hand stitch should be used?

As a community service project, members of the FHA/HERO chapter are making doll clothes for a local child care center. The students would like to use a decorative finish on the edges of the clothing. What hand stitch should they use?

Isabelle is working on a project that requires her to gather fabric quickly. She would like to use a stitch that can be applied quickly and removed when necessary. What hand stitch should she select?

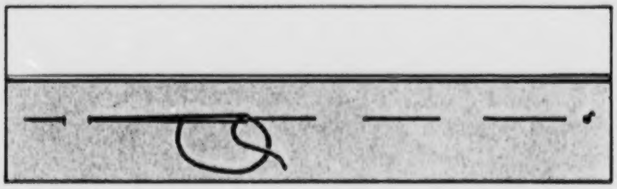
Backstitch

Backstitching, the strongest of the hand-sewn stitches, is used to complete the following tasks:

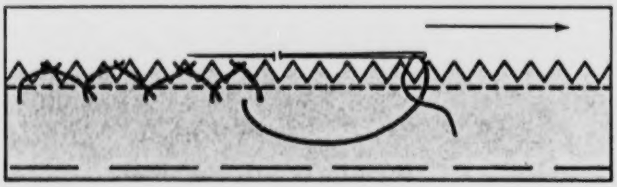
- secure hand stitching at the beginning and end of a seam
- repair seams
- topstitch
- handstitch zippers
- hand understitch

Hand Stitches

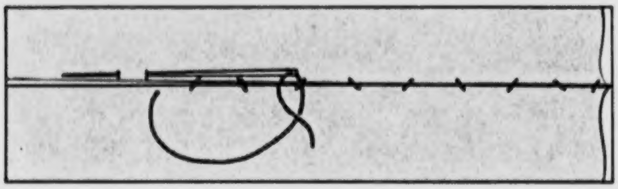
Basting Stitch



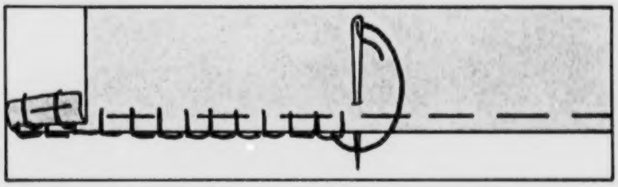
Catchstitch



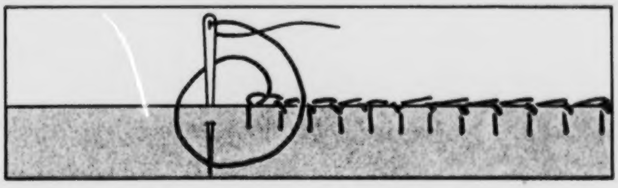
Slipstitch



Blanket Stitch

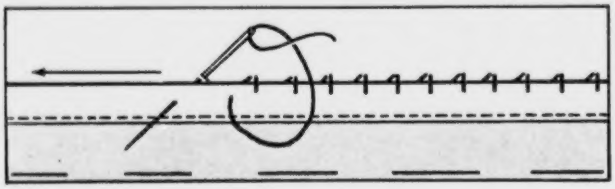


Buttonhole Stitch

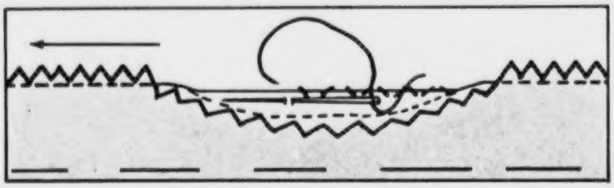


Hand Stitches

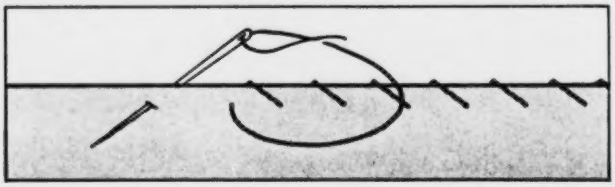
Vertical Hemming Stitch



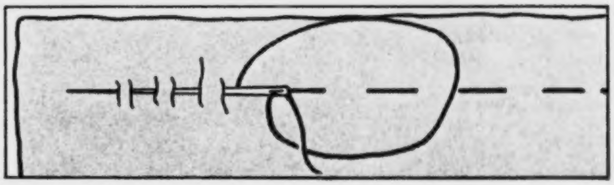
Blind-Hemming Stitch



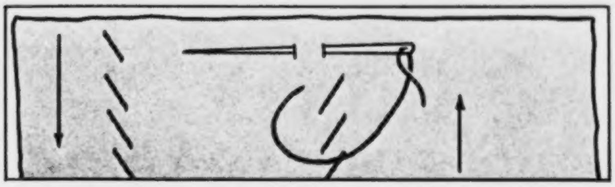
Overcast Stitch



Running Stitch

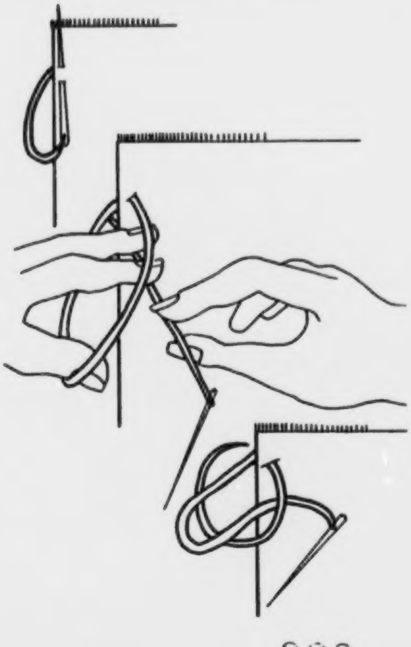


Padding Stitch

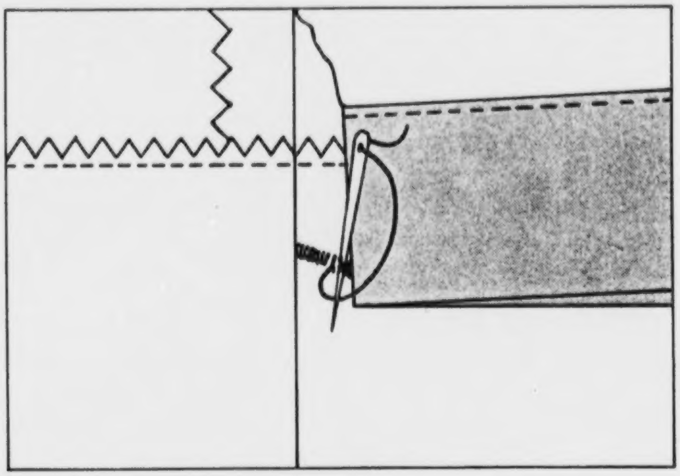


Thread Chain

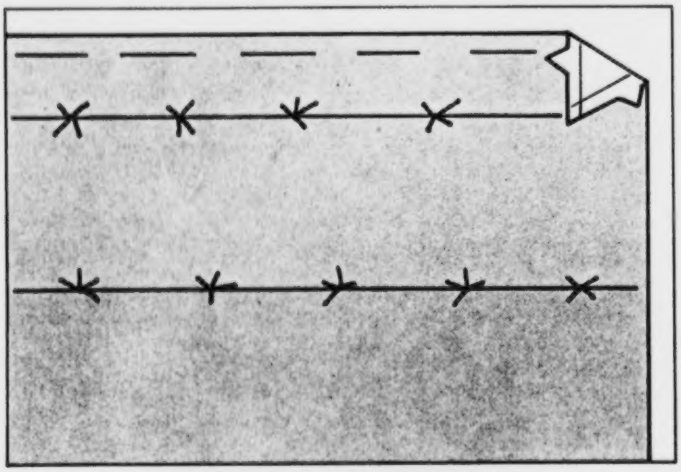
- Mark where the chain should begin and where it should be fastened onto the garment.
- Make a small stitch at the beginning mark and pull the thread through partially, leaving a large loop about 4" long.
- Use the thumb and first two fingers of the left hand to hold the loop open. Use the thumb and forefinger of the right hand to hold the thread supply.
- Reach through the loop with the second finger of the left hand, grasp the thread in the right hand, and pull the thread through the loop to start a new loop. As the new loop is being formed, the first loop should slide off the fingers and tighten as it is drawn near the fabric.
- Hold the new loop as the first loop was held with the thumb and two fingers of the left hand.
- Continue making the thread chain using this process until the desired length is achieved.
- To finish the chain, slip the needle through the last loop and tighten the loop into a knot.
- Sew the chain to the fastening point on the garment.



Tacks



French Tacks



Tailor's Tacks

Reinforcing Seams

The following suggestions may be used for reinforcing seams and areas of strain in a garment:

- ☐ Machine stitch curved and bias seams using short stitches; stitch again 1/16" beyond the seam line.
- ☐ Restitch pocket corners.
- ☐ Use straight (twill) or bias tape to reinforce seams.
- ☐ Use bar tacks at the ends of plackets.
- ☐ Restitch frayed seams and make them slightly wider when possible; finish seam edges to prevent raveling.

Suggestions for Making Hand and Machine Darns

- Study the weave of the original fabric and make the darn look as much like the original weave as possible.
- Perform the work under the best light available.
- Use a fine needle and short thread.
- Perform darning on the right side of the fabric and blend it into the fabric around the hole.
- Attempt to make a flat darn to avoid puckering.
- Attempt to weave the mending yarn or thread between fabric yarns, not in and out of the fabric.
- Make small stitches.
- Pull the ends of darning yarns to the underside of the garment and cut them off, but not too closely.
- Steam press the finished darn from the wrong side.

Shortening a Zipper

To shorten a zipper from the bottom, use the following procedures:

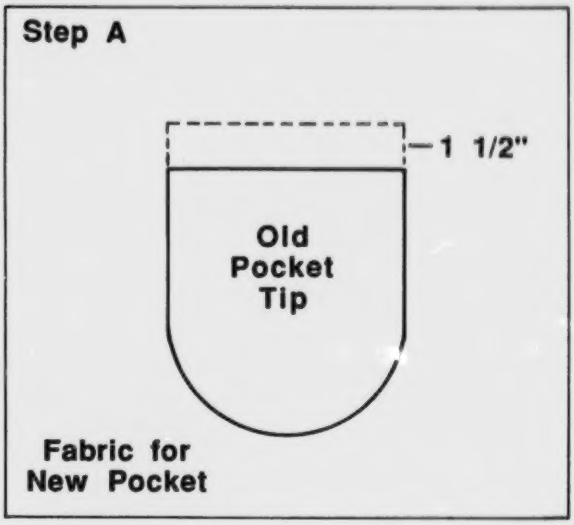
- → Choose a method of application and baste the zipper to the garment.
- → Whip stitch across the zipper coil several times 1/4" below the desired end of the zipper opening.
- → Sew a large, straight metal eye for a new bottom stop above the whip stitches.
- → Cut off the extra zipper tape and teeth below the whip stitches and 1/2" below the new bottom stop.
- → Complete the zipper application.

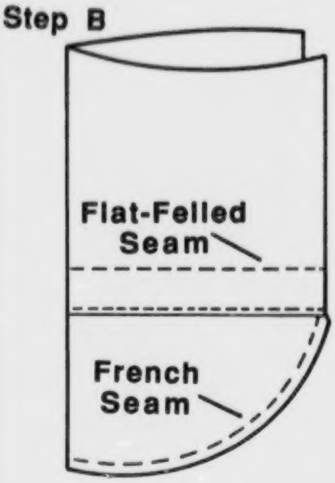
To shorten a zipper from the top, use the following procedures:

- → Baste the zipper to the garment to within 1" of the desired end of the zipper teeth (at the top of the zipper).
- → Open the zipper and remove the extra teeth from the zipper tape.
- → Use two straight metal eyes for new top stops. Bend the metal eyes in half around each side of the zipper tape above the teeth. Sew the new top stop to the tape.
- → Close the zipper. Fold the top ends of the zipper tape down before completing the zipper application. Trim off the extra zipper tape. Tack the tape ends down.
- → Complete the zipper application.

Replacing Half of a Pocket

- Cut off the lower half of the pocket.
- Rip the seam out in the part of the pocket that has been removed. Using this part of the pocket as a pattern, cut a new pocket half, allowing at least 1" to 1 1/2" of extra fabric across the top for a seam. (See step A.)
- Attach the new half pocket to the top half of the original pocket using a flat-felled seam. Make a French seam at the bottom of the pocket for reinforcement. (See step B.)


Step A
1 1/2"
Old Pocket Tip
Fabric for New Pocket


Step B
Flat-Felled Seam
French Seam

Rules for Pressing

The following rules should be used to determine the pressing requirements of specific fabrics:

- Test before pressing. The effects of pressure and heat should be tested on a fabric scrap or in a less noticeable area to determine the best technique for the fabric. The results should be compared with an unpressed area.
- Check the fabric's reaction to steam and moisture. Do not use too much of either steam or moisture.
- Press on the wrong side of the fabric when possible. When it is necessary to press on the right side of the fabric, use a press cloth.
- Become familiar with the characteristics of different fabrics and avoid over pressing.

Guidelines for Pressing During Construction

The following guidelines will help pressers and garment makers use pressing techniques effectively during construction:

- ✓ Set up pressing equipment near the sewing machine during garment construction or alteration if conventional pressing equipment is used and if one person performs pressing and stitching tasks.
- ✓ Use appropriate pressing equipment for each task.
- ✓ Use steam to ease, flatten seams, and mold curves. Use heat and moisture, not weight, to shape garments.
- ✓ Avoid pressing lengthwise creases in sleeves or lapels.
- ✓ Press collars, lapels, cuffs, belts, and pockets on the wrong side first; finish by pressing lightly on the right side while using a press cloth.
- ✓ Press embroidery, braid, buttons, and other rough textures from the wrong side over a soft pad such as a folded towel.

Final Pressing

Pressing takes. . .

Time

Patience

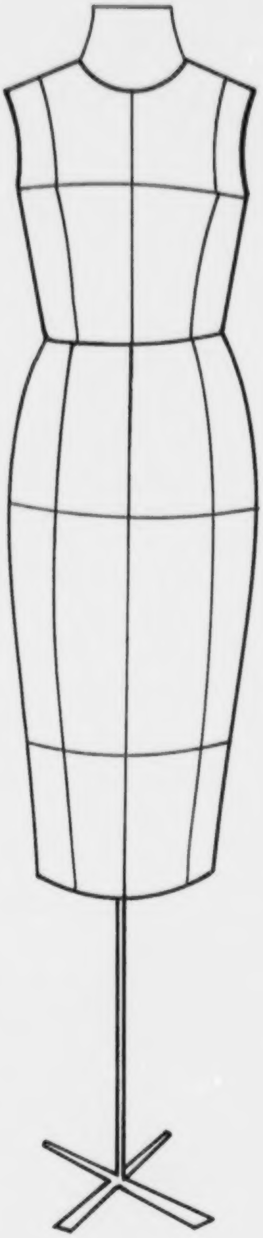
Experience

Proper Equipment

Knowledge of
- grain line
- various fabrics
- the contours of garments

Functions of Forms for Custom Sewing

Develop Original Patterns

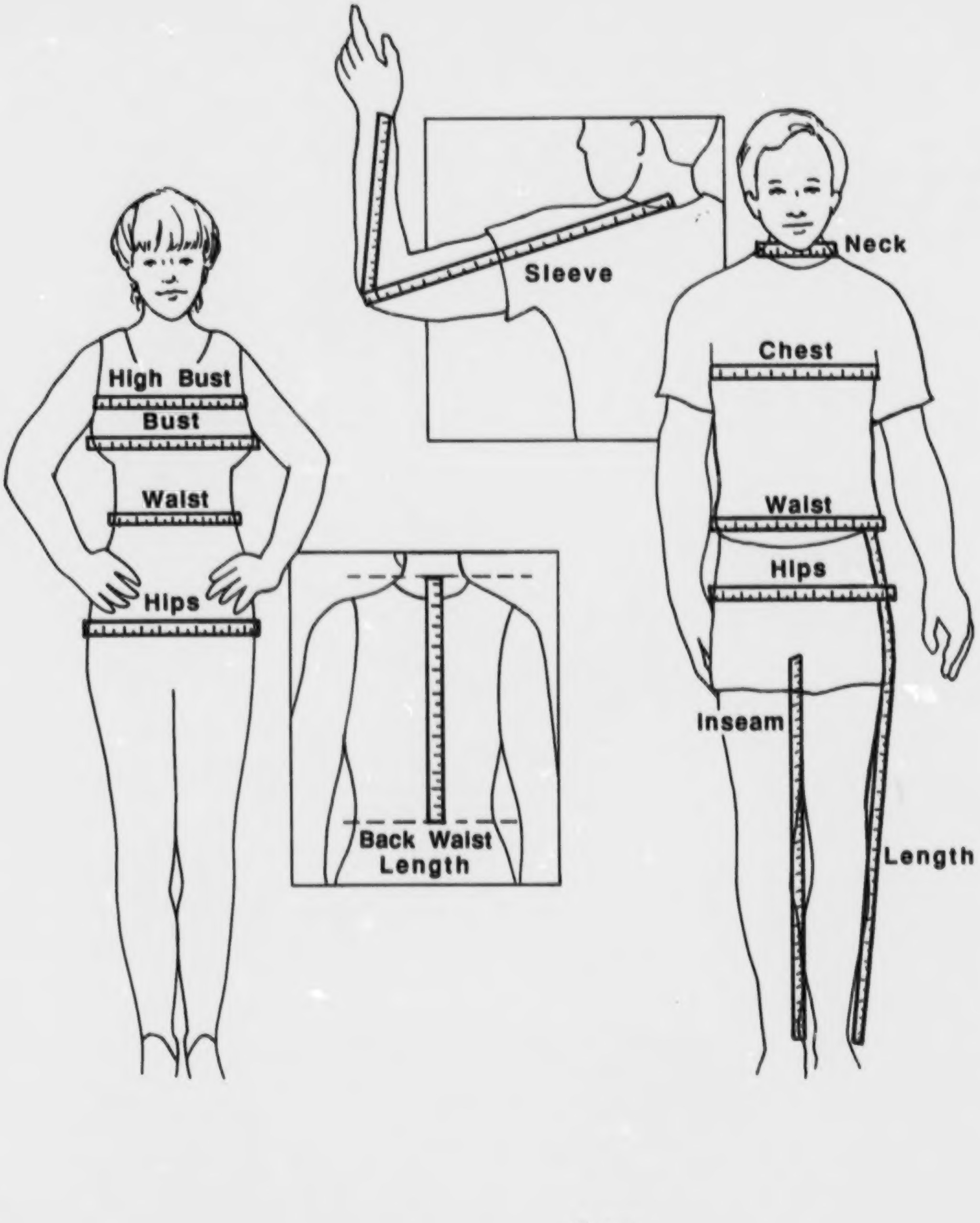


Fit Sample Garments

Alter Custom-Made Garments

Establish Hemlines

Taking Body Measurements


Sleeve
Neck
High Bust
Bust
Chest
Waist
Waist
Hips
Hips
Inseam
Back Waist Length
Length

Comparing Patterns from Different Companies

Silhouette

longer, fuller cut around armholes

CONTEMPO

true to size, shorter

Zodiac

skimpy around neckline

Old ☆ Glory

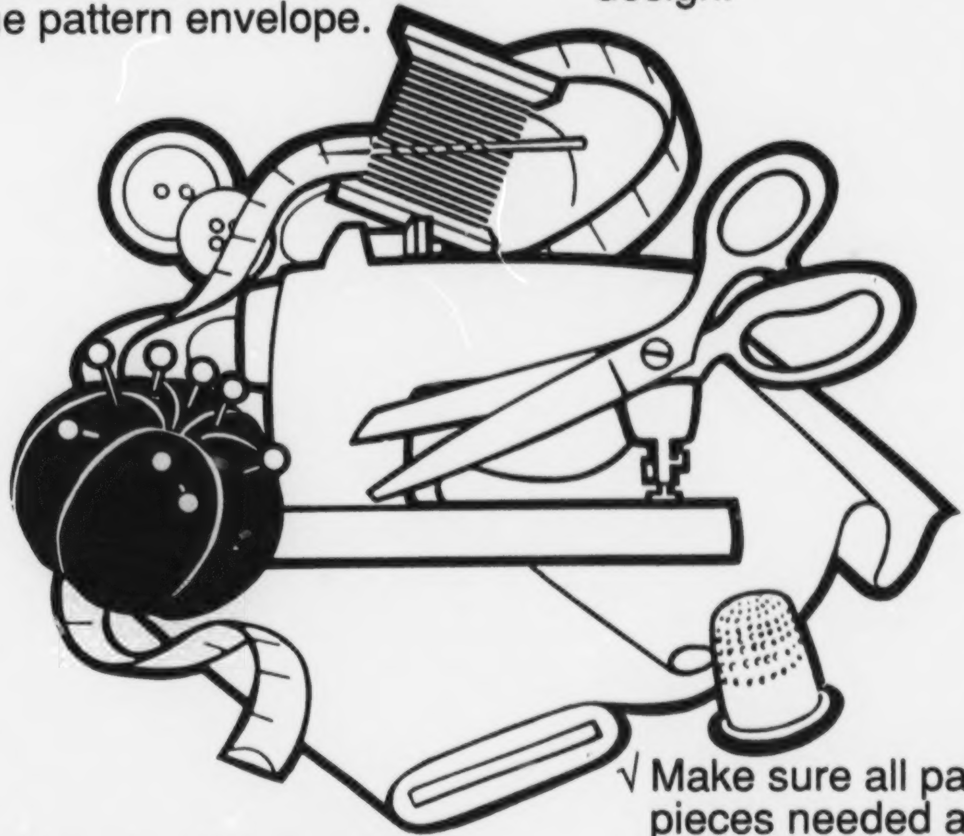
true to size

Guidelines for Custom Sewers

√ Verify that the pattern is the correct size.

√ Determine if the fabric is suitable for the garment design.

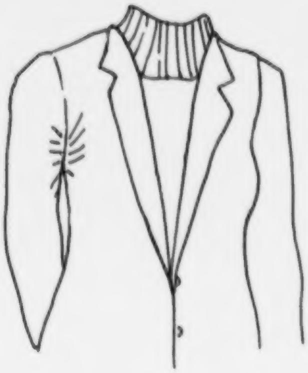
√ Circle the correct view on the pattern envelope.



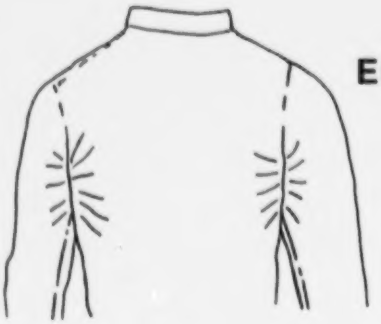
√ Make sure all pattern pieces needed and the instruction sheet are enclosed in the pattern envelope.

√ Determine if the correct amounts of notions, fabric, lining, trim, and interfacing are provided.

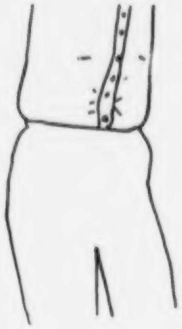
Straining Over Body Curves



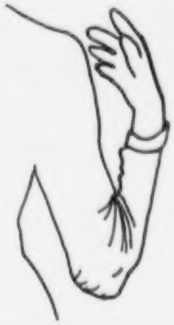
Shoulder Blade



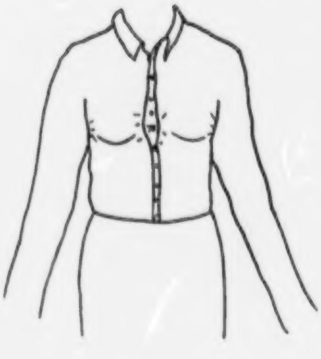
End-of-Shoulder



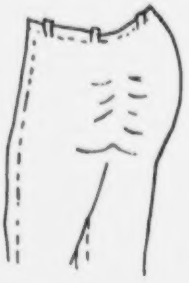
Abdomen



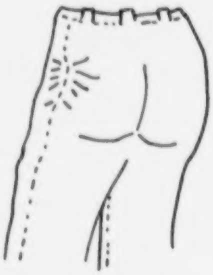
Elbow



Bust



Back Hip



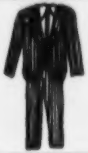
Side Hip

Observing Garment Lines

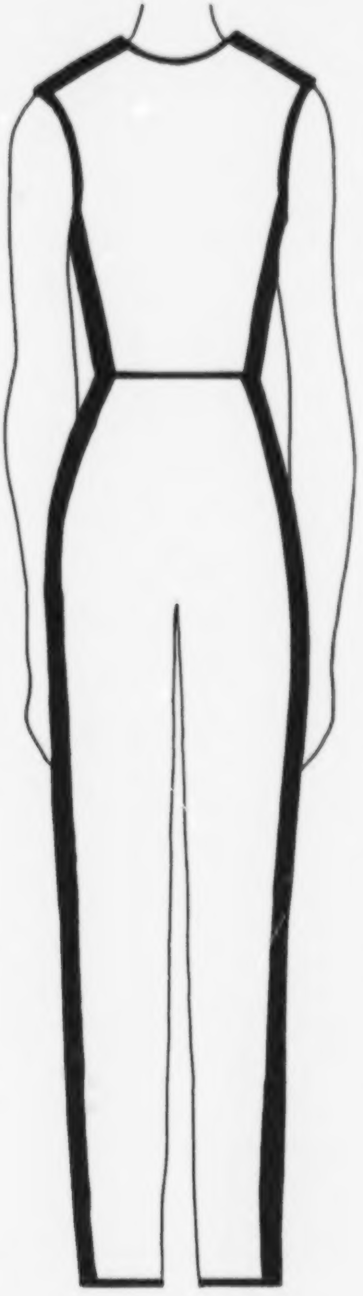
Date of Observation ______________________________

Time of Observation ______________________________

Place of Observation ______________________________

Subject/Brief Description	Type of Garment	Explanation of Garment Lines	Sketch
1 male/6'1" tall, moderate build	navy, pin stripe suit	vertical, thin lines on fabric; wide lapels on jacket create diagonal construction lines	
2			
3			
4			
5			
6			

Circumference and Silhouette Seams



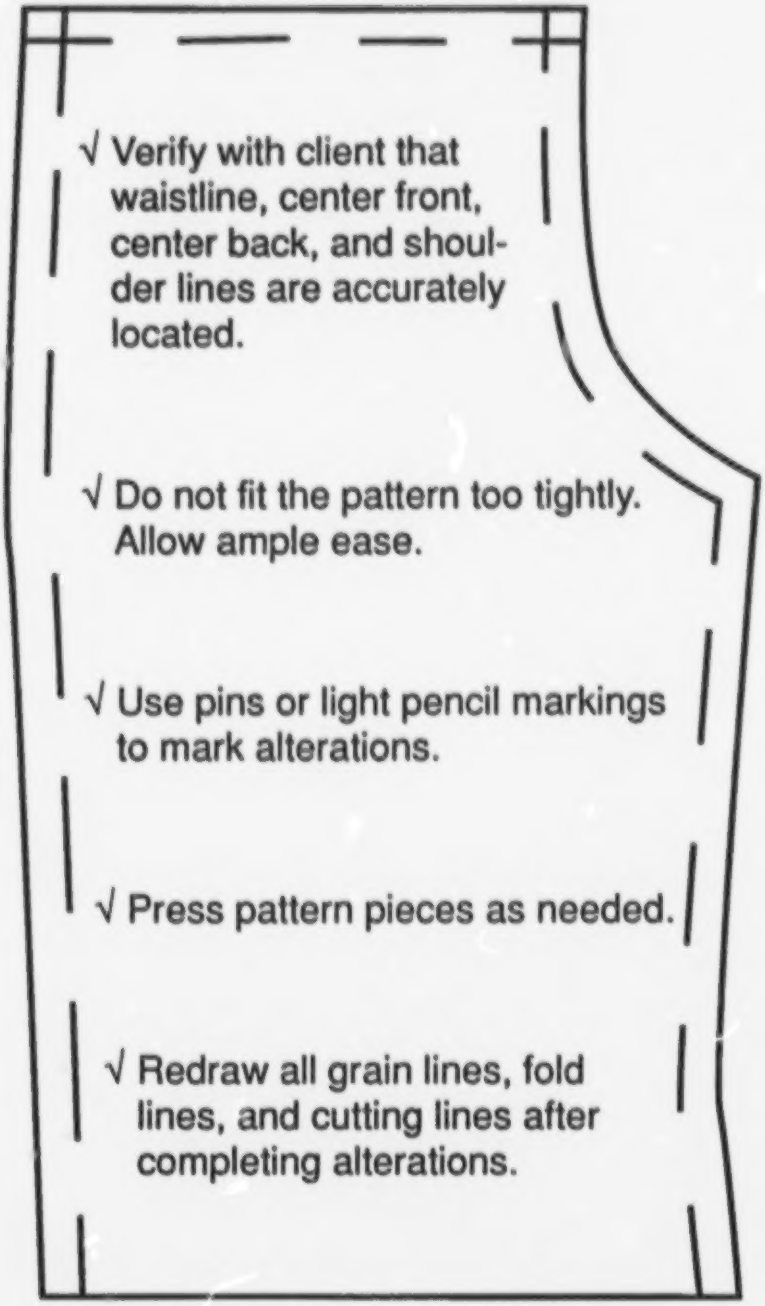
Additional Measurements Needed for Pattern Alterations

For each measurement listed, place a √ in the column(s) of the individual(s) to be measured when making pattern alterations. Some measurements may be needed for more than one individual.

Measurement	Woman	Man	Child
center front skirt length			
girth			
3" below waist			
wrist			
9" below waist			
shoulder length			
shoulder to elbow			
arm length			
pants/trouser/slack inseam			
crotch depth			
center back skirt length			
back dress length			
crotch length			
right side skirt length			
center back bodice length			
back neck to waist length			
left side skirt length			
7" below waist			
upper back width			
shoulder to bust point bodice length			
pants/trouser/slack outseam			
5" below neck back width			
center front bodice length			
bust point to waist bodice length			

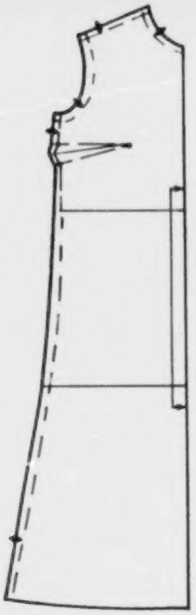
TA 102

Guidelines for Fitting Patterns

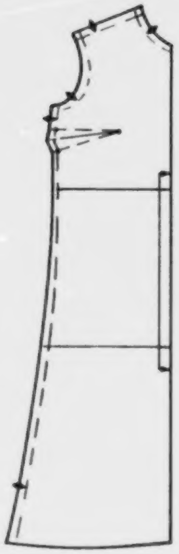


- √ Verify with client that waistline, center front, center back, and shoulder lines are accurately located.
- √ Do not fit the pattern too tightly. Allow ample ease.
- √ Use pins or light pencil markings to mark alterations.
- √ Press pattern pieces as needed.
- √ Redraw all grain lines, fold lines, and cutting lines after completing alterations.

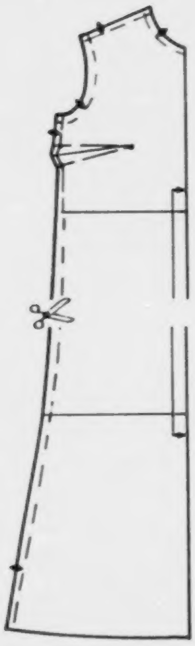
Combining Patterns of Different Sizes



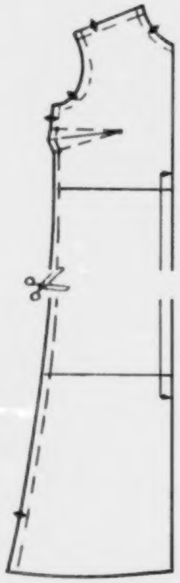
Size 12
Dress Front



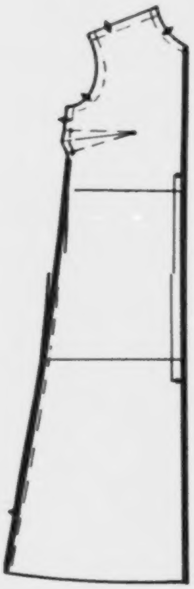
Size 10
Dress Front



Size 12 Dress
Cup Apart at Waistline

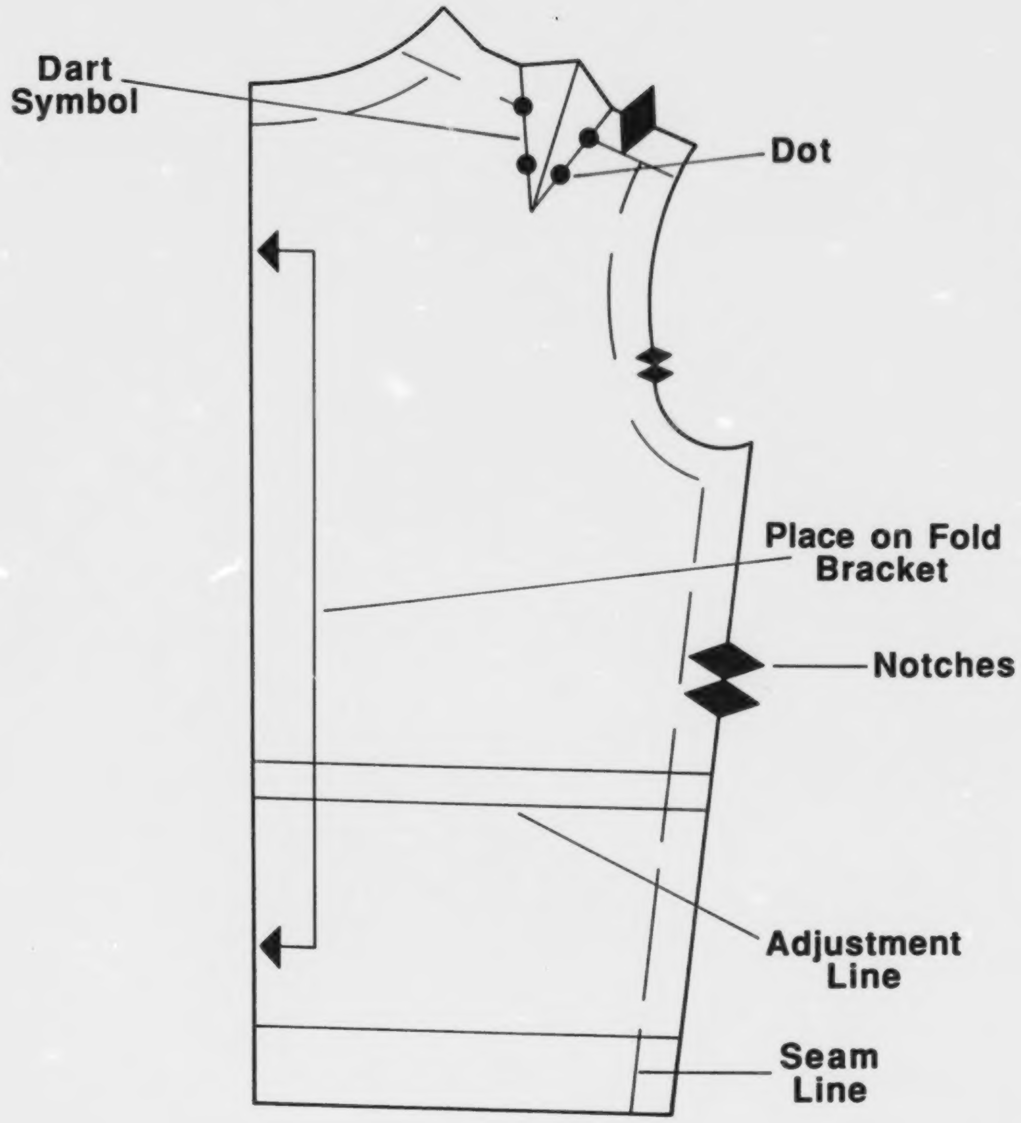


Size 10 Dress
Cut Apart at Waistline

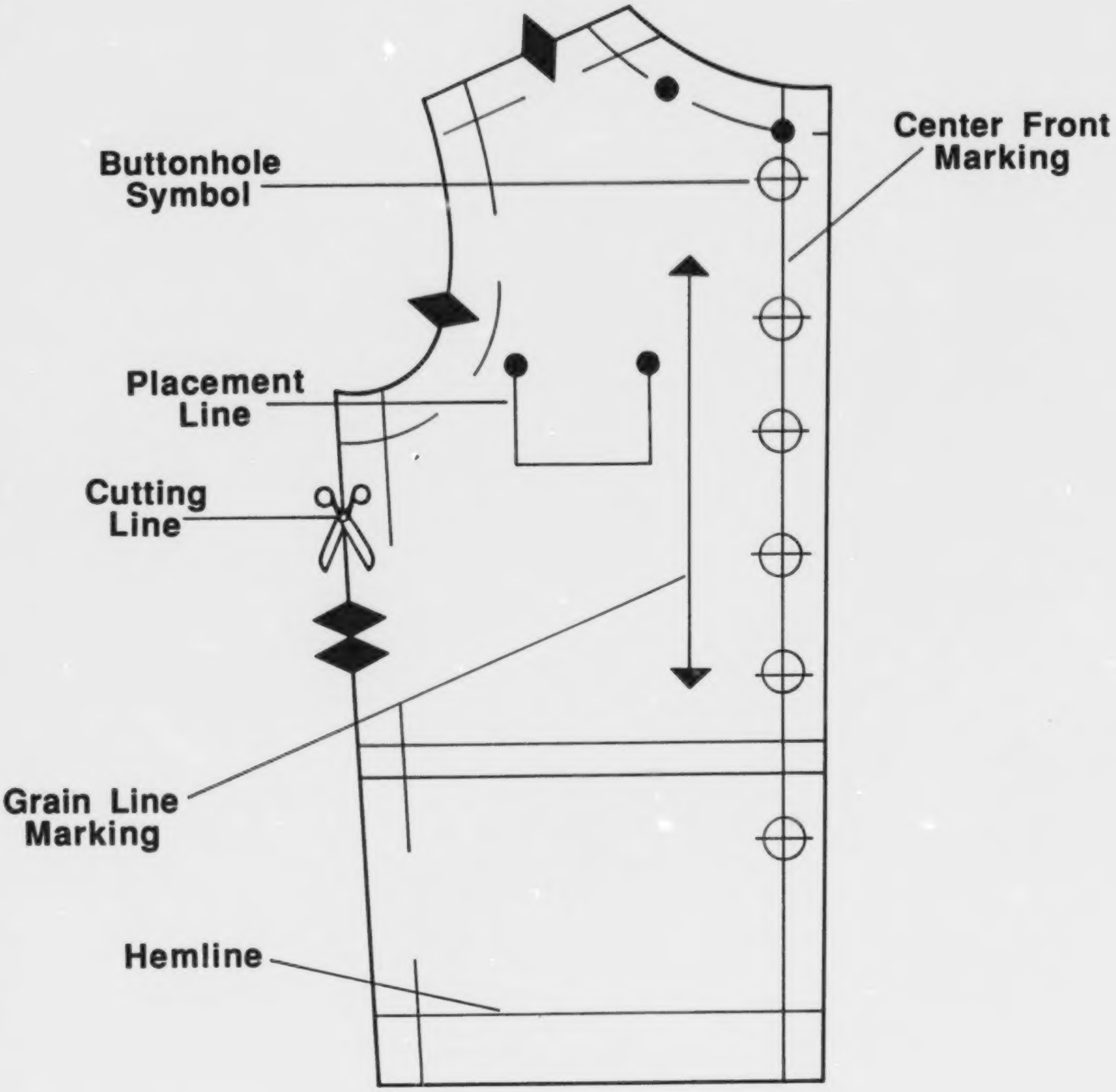


Size 10 Dress Top
Taped to Size 12
Dress Bottom and
New Lines Drawn

Pattern Symbols

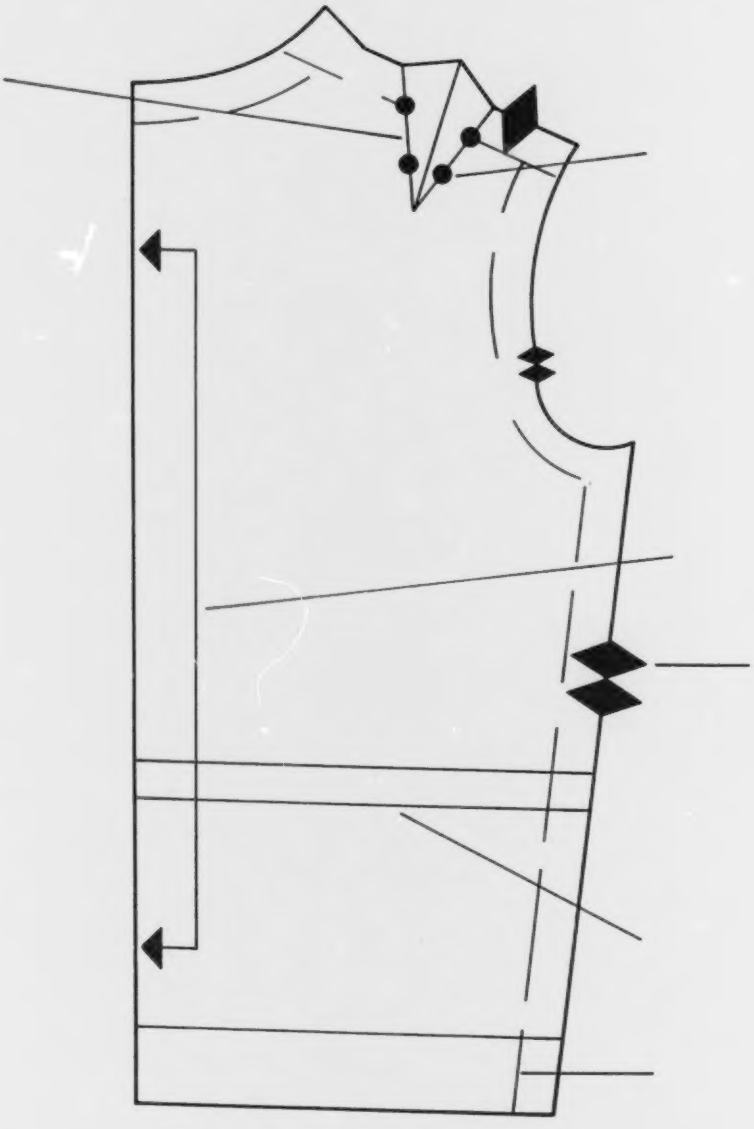

Dart Symbol
Dot
Place on Fold Bracket
Notches
Adjustment Line
Seam Line

Pattern Symbols

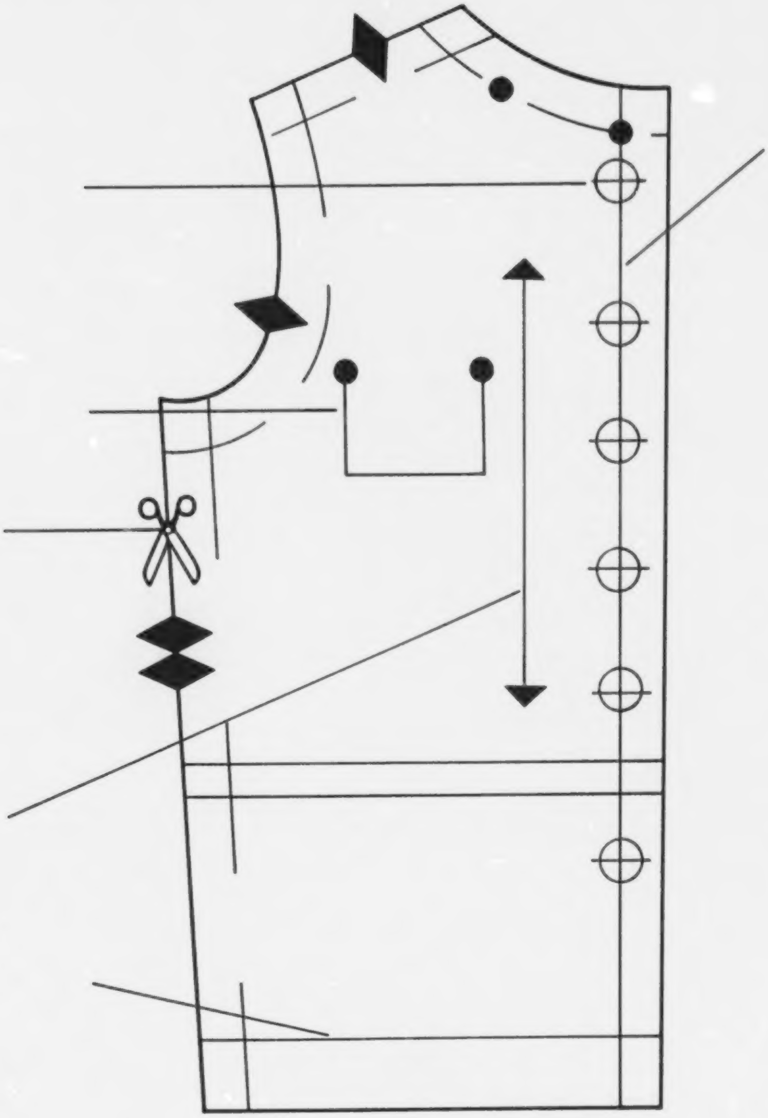

Buttonhole Symbol
Center Front Marking
Placement Line
Cutting Line
Grain Line Marking
Hemline

TA 104c

Pattern Symbols



Pattern Symbols



TA 105

Pattern Guide Sheet

- drawings of the front and back views of each garment
- a diagram of all pattern pieces
- descriptions of pattern symbols included on the pattern pieces
- directions for preparing the pattern and laying it out on the fabric
- instructions for transferring markings from the pattern pieces to the fabric
- definitions of special terms used in the directions
- an explanation of how to lengthen and shorten the pattern pieces
- an explanation of the shading used to distinguish different fabric layers and the reverse sides of pattern pieces

TA 106

Preshrinking Fabric

Hand-Washable Fabric	Fold the fabric and place in hot water for thirty minutes.
Washable Fabric	Place in the washing machine with a regular load of laundry. Dry by laying flat with edges square or placing in a clothes dryer. Zigzag or hand overcast the raw edges before washing if the fabric will ravel.
Dry Cleanable Fabric	Have the fabric dry cleaned.

TA 107

Steps for Tearing Fabric

✔ Make a short cut through one selvage.

✔ Grasp the fabric on either side of the cut.

✔ Tear the fabric 5" or 6" at a time.

✔ Grasp the fabric near the end of the previous tear and tear 5" or 6" more.

✔ Continue tearing in 5" or 6" increments until the other selvage is reached.

✔ Cut through the other selvage.

Pinning Pattern Pieces

- ➡ Place the fold line of the pattern piece along the fold of the fabric.
- ➡ Pin along the fold approximately every 6".
- ➡ Pin, diagonally, in the corners of the pattern piece.
- ➡ Pin the edges of the pattern piece about every 6". Place pins perpendicular to the stitching lines, pointing toward but not over the cutting lines.

TA 109

Construction Project Evaluation

Student ______________________ Project ______________________

Date ______________________ Class ______________________

Complete the chart below by placing a √ in the appropriate column to indicate the quality of each item listed. Identify areas in which the quality of the project can be improved.

Project Characteristics	Poor	Fair	Good	Excellent
overall attractive appearance				
appropriate pattern and fabric				
correctly cut				
marked adequately without residue				
neat and uniform stitching				
smooth darts				
appropriate seams				
secure and appropriately spaced fasteners				
smooth facings				
neat neckline				
correctly completed armholes or sleeves				
neat bands				
uniform, secure, and inconspicuous hems				
correct fit				
effective pressing				

Student's Comments: ______________________

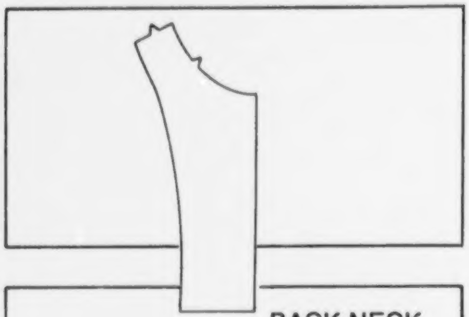
Teacher's Comments: ______________________

Facings

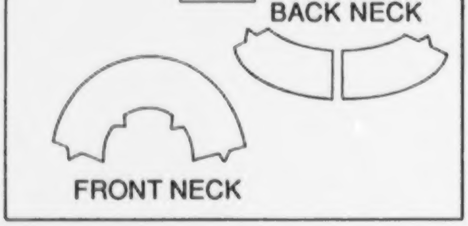
SELF-FACINGS

BODICE OR SHIRT FRONT

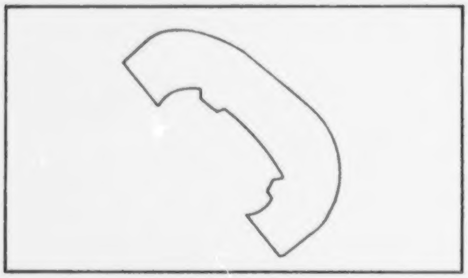
Facing is cut in sections and matched to garment edges.



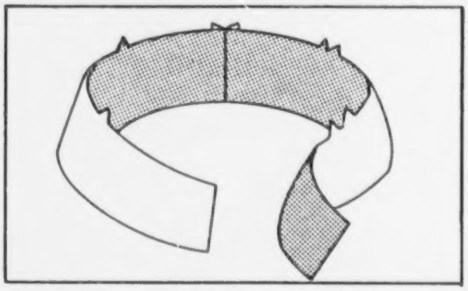
NECKLINE


BACK NECK
FRONT NECK

ARMHOLE



WAISTLINE

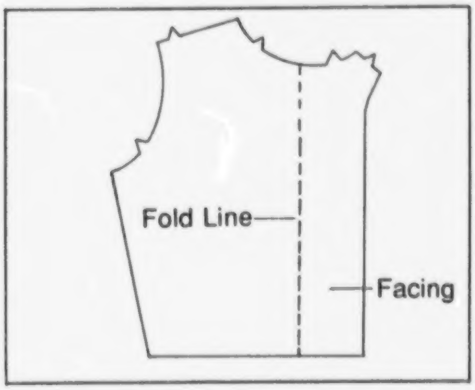


Facings

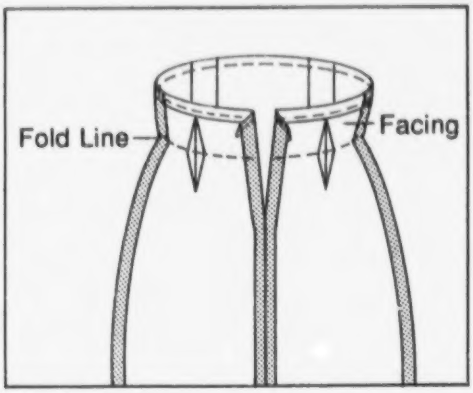
FITTED FACINGS

BODICE OR SHIRT FRONT

Facing is cut as a part of garment, then folded back.

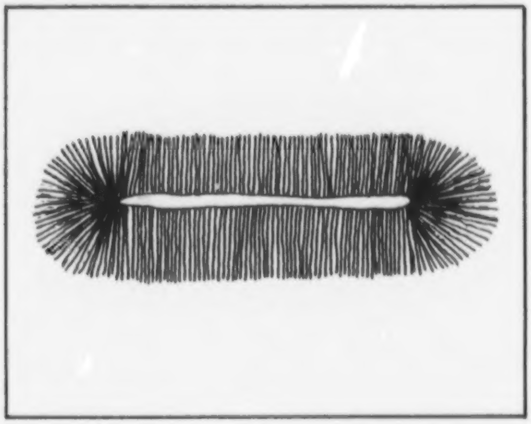

Fold Line
Facing

WAISTLINE

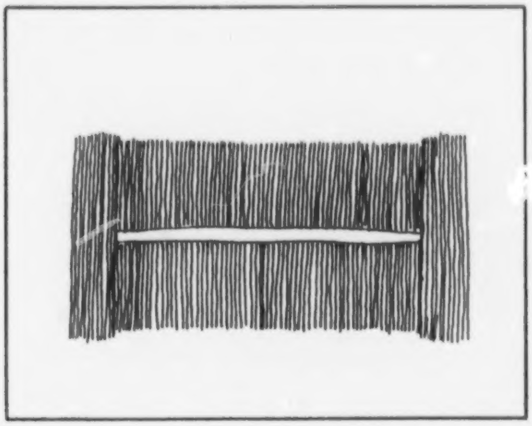

Fold Line
Facing

Machine-Worked Buttonholes

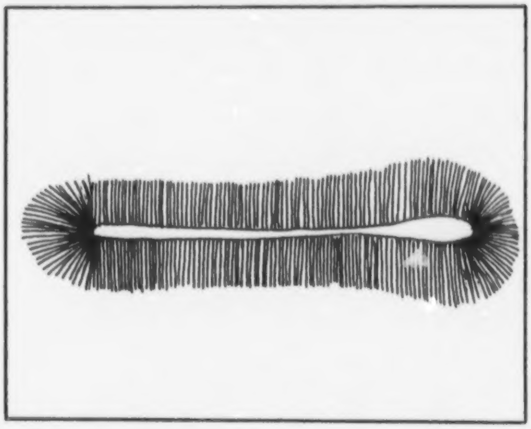
OVAL
Built-in stitches
Special attachment



RECTANGULAR
Manual-machine
Built-in stitches
Special attachment



SPECIAL
ATTACHMENT



Characteristics of *Good Fit*

Front of Flashcard	Back of Flashcard
Neckline	does not gap or wrinkle; fits close to the body
Shoulder	lies straight from the neck to the shoulder; does not pull to the back or the front
Armhole	is cut full enough for normal movement, about 1/2" to 1" below armpit
Buttonhole	holds the button firmly in place without straining
Bust and Waistline Darts	taper to a point without pulling or wrinkling; bust dart points to but does not extend through the fullest part of the bust
Waistline	falls naturally on the waist without riding up or sliding down
Sleeve Length	is comfortable and appropriate for the garment; elbow darts fall at the bend of the elbow; long sleeves touch the hand where the hand joins the wrist
Hip Line	lies smoothly without wrinkles or tucks
Side Seam	hangs straight from the armhole and waistline; perpendicular to the floor without straining or pulling
Garment Length	is in proportion to the whole garment and the individual's figure; flat, smooth hems with no puckers or gathers
Grain Lines	are perfectly straight and at right angles

Difficult Fittings

Mrs. Jones is a frequent customer of Hale's Department Store where there is a new policy of free alterations on all clothing purchases. She recently visited the ladies dress department with a dress she purchased five years ago. Mrs. Jones had an operation during the last six months and lost a large amount of weight. Her dress size decreased two sizes. She wanted the dress, one of her favorites, altered to fit her new size. Mrs. Jones insisted that the alterationist has always done a great job when altering her husband's suits and that her present request should not be considered unusual. How should the alterationist respond to Mrs. Jones in order to keep her as a loyal customer?

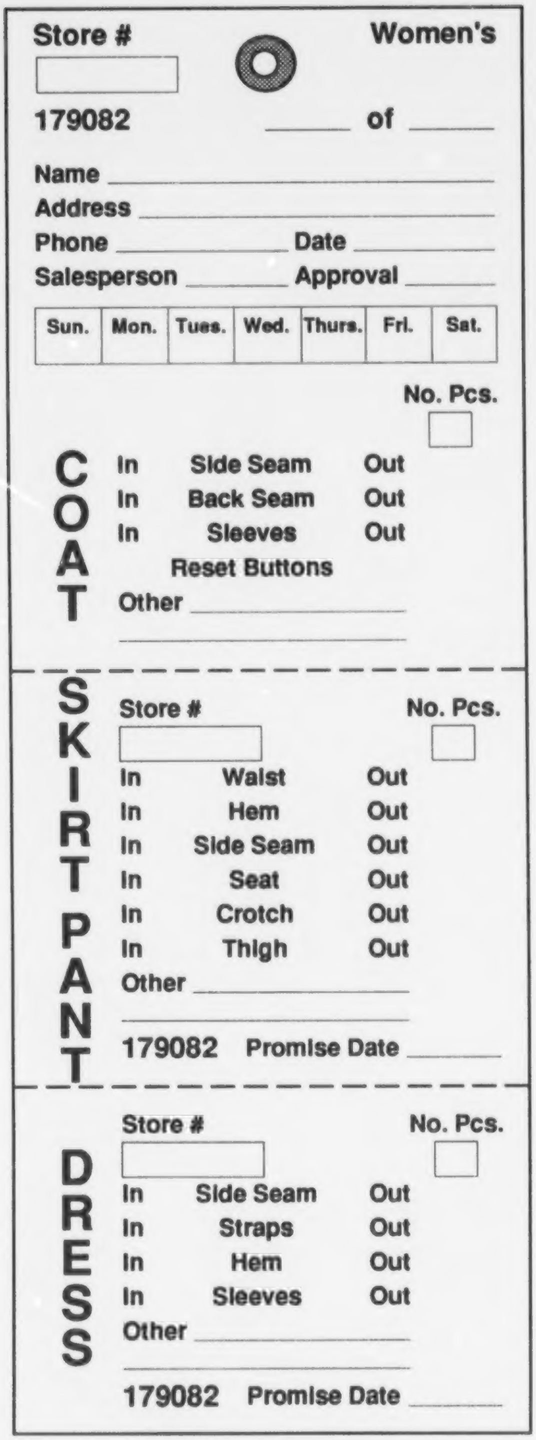
Sara owns a busy custom dress shop and performs many of the alteration tasks herself. One of her frequent customers has formed the habit of bringing soiled and stained garments in to be altered or repaired. The first few times this happened, Sara had the garments cleaned at her expense before she began altering and repairing them. Since the customer continues to bring soiled garments to the shop, Sara believes the customer is taking advantage of the situation. Since it is expensive to clean the garments, Sara is unable to continue to pay for the cleaning. How should Sara explain to the customer that she must bring only clean clothes in to be altered or repaired without hurting the customer's feelings and losing her as a customer?

Men's Clothing Considerations

Rank each consideration below on a scale of 1 to 5 with 1 representing the least important and 5 representing the most important consideration when making clothing choices.

	Fit	Silhouette	Fabric	Texture	Color
Interviewee 1 – Age _____					
Interviewee 2 – Age _____					
Interviewee 3 – Age _____					
Interviewee 4 – Age _____					
Interviewee 5 – Age _____					
Interviewee 6 – Age _____					
Interviewee 7 – Age _____					
Interviewee 8 – Age _____					
Interviewee 9 – Age _____					
Interviewee 10 – Age _____					

Alteration Tags



Store # ☐ Women's

179082 ______ of ______

Name ______
Address ______
Phone ______ Date ______
Salesperson ______ Approval ______

Sun.	Mon.	Tues.	Wed.	Thurs.	Fri.	Sat.

COAT

No. Pcs. ☐

In Side Seam Out
In Back Seam Out
In Sleeves Out
Reset Buttons
Other ______

SKIRT PANT

Store # ☐ No. Pcs. ☐

In Waist Out
In Hem Out
In Side Seam Out
In Seat Out
In Crotch Out
In Thigh Out
Other ______

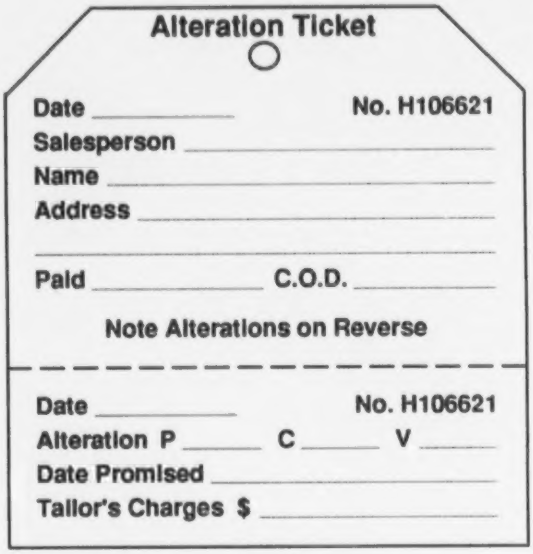
179082 Promise Date ______

DRESS

Store # ☐ No. Pcs. ☐

In Side Seam Out
In Straps Out
In Hem Out
In Sleeves Out
Other ______

179082 Promise Date ______



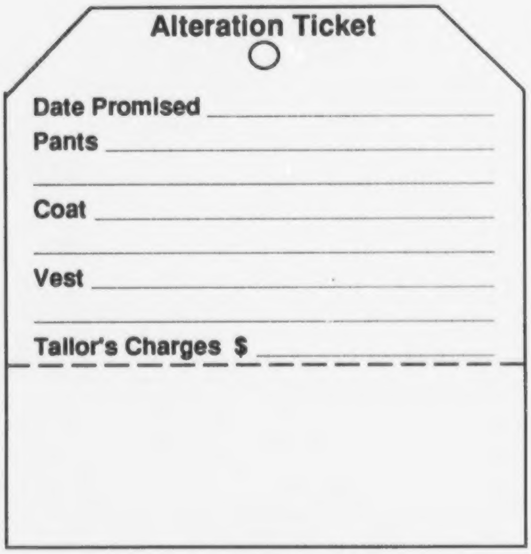
Alteration Ticket

Date ______ No. H106621
Salesperson ______
Name ______
Address ______
Paid ______ C.O.D. ______

Note Alterations on Reverse

Date ______ No. H106621
Alteration P ______ C ______ V ______
Date Promised ______
Tailor's Charges $ ______

Front



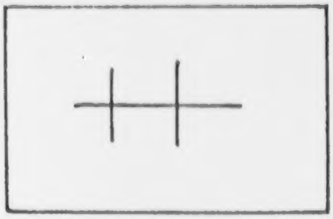
Alteration Ticket

Date Promised ______
Pants ______
Coat ______
Vest ______
Tailor's Charges $ ______

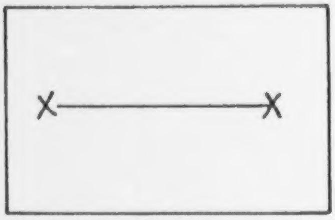
Back

TA 116

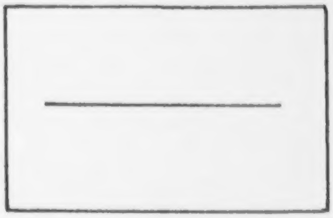
Alteration Symbols



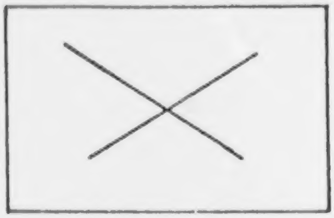
Lengthen



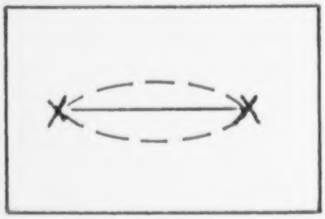
Release Space



Shorten



Alter Only One Side



Take In Space Between

Alterations for Ms. Twiddle

Cast: Ms. Twiddle, Customer
Ms. Minnie, Salesperson and Fitter
Mr. Hobokin, Alterationist
Narrator

Setting: Holcomb's Fine Apparel

Narrator: Ms. Twiddle is a long-time friend and customer of Ms. Minnie, who has sold coats at Holcomb's Fine Apparel for many years. Today, Ms. Twiddle is purchasing a new winter coat from Ms. Minnie. Ms. Twiddle wants it to fit perfectly because she will be wearing it for a long time. Mr. Hobokin is a new employee of Holcomb's and has never altered a garment for Ms. Twiddle.

Ms. Twiddle: My, isn't it a lovely day today, Ms. Minnie? It's hard to believe that winter is right around the corner. I know winter is coming though, and I'm going to be ready for it this year.

Ms. Minnie: It's so nice to see you this afternoon, Ms. Twiddle. It is a beautiful day, isn't it? It's a perfect day to select your new winter coat. We are having a special 20% off sale on all our coats this week.

Ms. Twiddle: Oh, marvelous! I'm just in time.

Narrator: Ms. Twiddle finds just the coat she wants with Ms. Minnie's help. They decide on the size that fits her best. However, some minor alterations are needed to correct a few fit problems.

Ms. Minnie: I think I will call our alterationist, Mr. Hobokin, to look at your coat and see if he can make the changes that need to be made.

Ms. Twiddle: Oh, that would be marvelous. I really do love this style and hope he can help. I want my new coat to fit just right.

Narrator: Ms. Minnie phones the alterations department and asks Mr. Hobokin to come to the ladies coat department.

Mr. Hobokin: Good morning, Ms. Minnie. How are you today?

Ms. Minnie: I'm fine. Thank you. I would like you to meet one of my best customers, Ms. Twiddle.

Ms. Twiddle: It's nice to meet you Mr. Hobokin. I do hope you can alter this coat so it fits me just right.

Mr. Hobokin: Well, let's have a look at it and see what the problem is. It seems to be a tad tight through the back, and the sleeves are a little short. We could take that hem up several inches, and you would have a much more fashionable coat.

Alterations for Ms. Twiddle

Ms. Minnie: Well now, Mr. Hobokin, Ms. Twiddle likes the length of the coat just fine. She thinks the waist is too loose and the sleeves are a bit long.

Mr. Hobokin: Oh, that's nonsense! I'm the one who knows how the coat should fit, so I know what needs to be altered.

Narrator: Ms. Twiddle is becoming quite nervous listening to the alterationist and the salesperson discussing her coat. She feels that she must say something.

Ms. Twiddle: I do like the length of the coat the way it is and don't want it any shorter. Maybe the sleeves are okay like they are too.

Mr. Hobokin: Well, I'll do whatever you want; just tell me.

Ms. Minnie: Thank you, Mr. Hobokin, for your input. I can finish the fitting for Ms. Twiddle.

Narrator: Mr. Hobokin walks off in a huff, believing his expertise has been questioned. Ms. Minnie continues pinning and marking Ms. Twiddle's coat.

Ms. Minnie: I think your coat will fit you perfectly. I will make sure Mr. Hobokin understands exactly what you want. Thank you so much, Ms. Twiddle. Your coat should be ready by next Thursday morning at ten o'clock.

Narrator: Ms. Minnie finishes writing the details of the alteration procedures on the ticket and sends the coat to the alterations department. On Thursday, Ms. Twiddle calls the alterations department of Holcomb's to make sure the coat is ready. They assure her that her coat is ready.

Ms. Twiddle: Good morning, Ms. Minnie. I'm here to pick up my new coat.

Ms. Minnie: Oh wonderful, Ms. Twiddle. I have it right here for you. I think it is such a lovely style for you. Let's try it on again just to make sure it's exactly the way you want it.

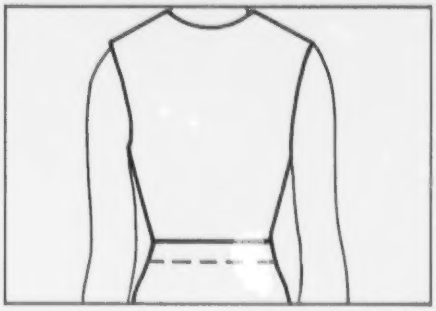
Narrator: Ms. Twiddle slips the coat on and gasps in horror!

Ms. Twiddle: What has he done to my coat? It's ruined! The sleeves are almost to my elbows and the hem is above my knees! This isn't the way I want my coat to fit. I'm so upset I could just cry.

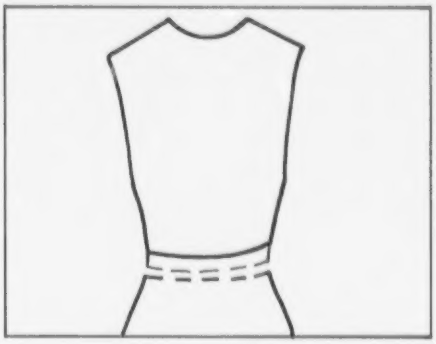
Ms. Minnie: Now, now, Ms. Twiddle. I'm so very sorry. I don't know what to say. I can't believe this has happened. I will speak to my manager about this and get another coat ordered for you right away.

Ms. Twiddle: I need the coat now, not next month! I will just have to take my business elsewhere, Ms. Minnie. Goodbye.

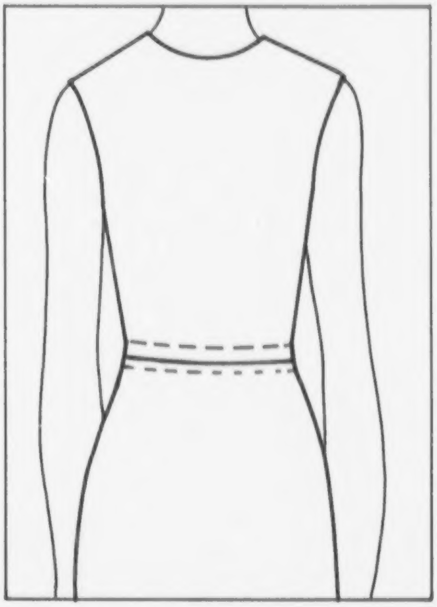
Lowering a Waistline



Determine where the client's natural waistline is and mark the corresponding location on the skirt with pins or tailor's chalk.



Separate the bodice from the skirt by ripping the waistline seam.



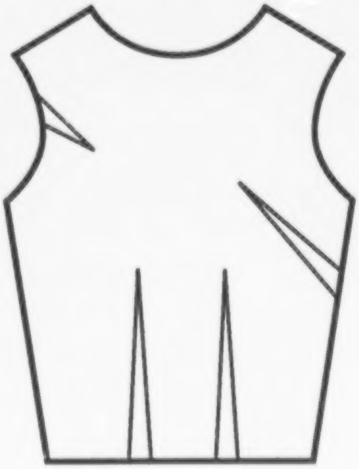
Pin the bodice and skirt back together using the new chalk or pin line for guidance. Do not change the skirt seam line.

Sew the bodice and skirt together on the new bodice seam line. Press the seam toward the bodice, trimming away excess seam allowance as needed.

Problem Fittings in the Shoulder Area

- ▲ Mark's shirt is too wide in the shoulder area; it hangs off the body and forms vertical folds between the armseye seam and the chest area.
- ▲ Milton's suit coat is too tight across the shoulders.
- ▲ Courtney's blouse does not sit on the shoulders but rides up along the neckline and underarm areas resulting in a high shoulder line.
- ▲ Renee has slightly sloping shoulders causing her jacket to fit poorly in the shoulder area.
- ▲ Marcus has very sloping shoulders causing his sports jacket to gather and produce folds at the front armholes.

Altering Darts

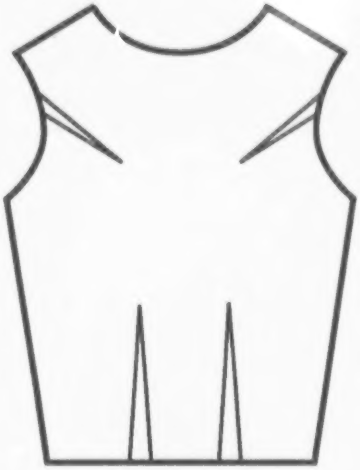


Construct the following darts on a sample bodice:

Sew one bust dart 3" long and 1" wide (extending from the armhole and pointing to the bust).

On the other side of the sample, sew a bust dart that is 5" long and 1/2" wide (extending from the side seam and pointing to the bust).

Sew two waistline darts 6" long and 1" wide. Position these darts equal distances from the center front.



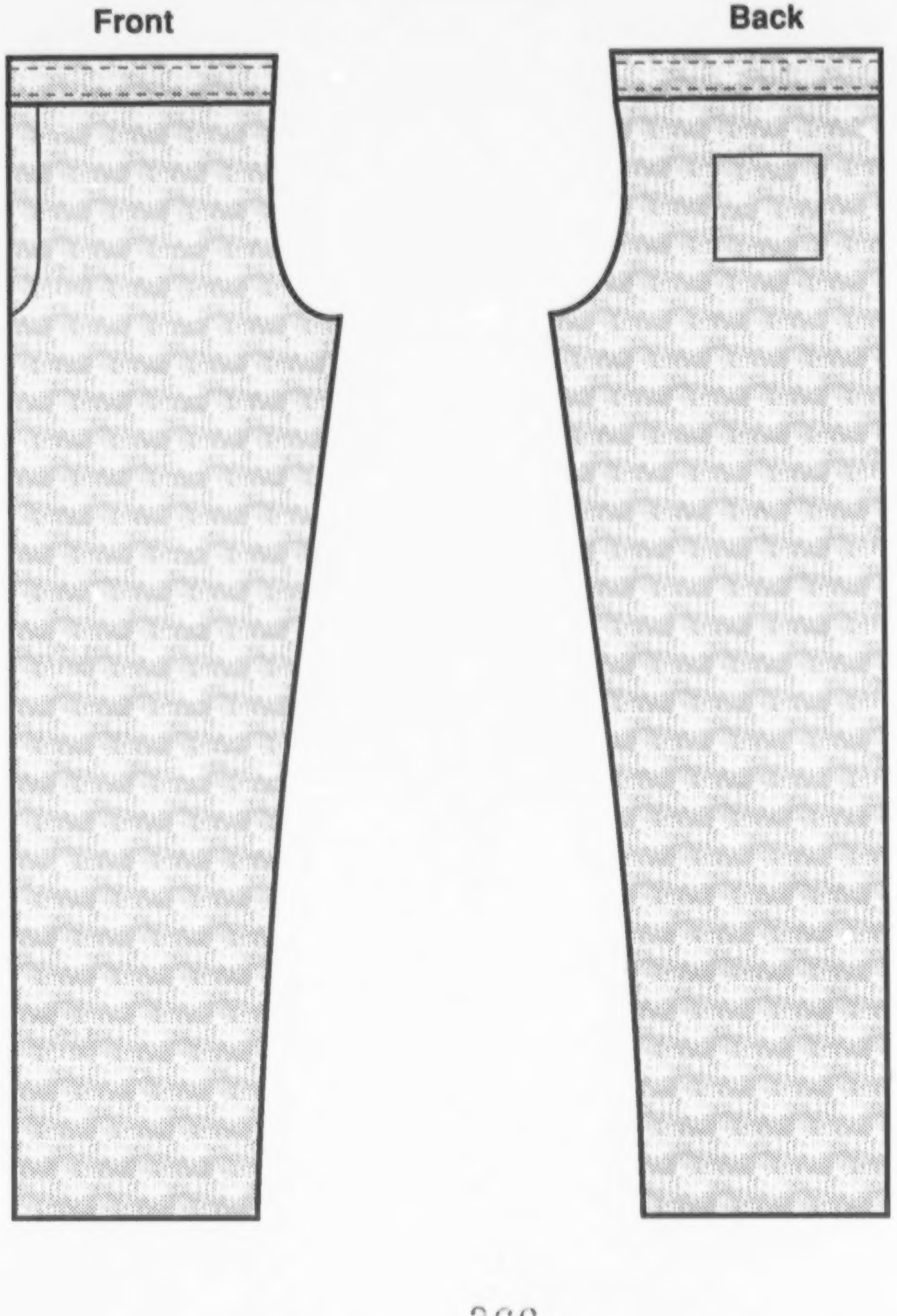
Exchange bodice samples and complete the following alterations:

Extend the shorter bust dart 2" and decrease the width to 1/2".

On the other side of the sample, remove the bust dart and sew a new dart identical to the bust dart on the other side.

Decrease the waistline darts by 2" in length, leaving them 1" wide.

Crotch Alterations



Decreasing Shoulder Width in Back of a Jacket

➡ Grasp the excess fabric along the center back seam until the armseye seams move into their proper places.

Mark the new seam line down the center back. Indicate where the new seam line should taper into the original seam line by marking an X with tailor's chalk at that point. Measure the amount to be taken up and write that figure on the alteration tag.

➡ Stitch the new seam along the center back, tapering the new seam into the original seam at the marked location.

➡ Remove the collar from the jacket and separate the upper and under collars from each other.

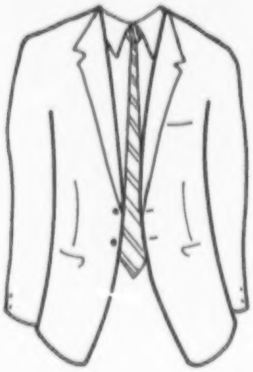
➡ Cut the collar at the center back and stitch a center back seam if the collar has no center back seam. The seam allowance should include the same amount of excess fabric taken up across the back of the jacket. Alter the upper and under collars in the same manner. Stitch the upper and under collars back together.

➡ Stitch the collar to the jacket.

➡ Trim and press the new seam open.

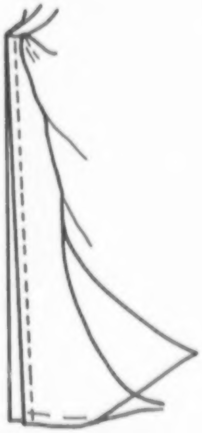
Altering Jackets at the Abdomen

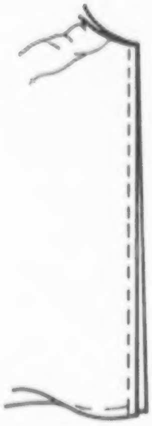
Button Method



- Move buttons about 1/4" to add extra ease.

Side Seam Method





- Use tailor's chalk to mark the amount of fabric to be released along each side seam. Write this measurement on the alteration tag.
- Release the side seams from the hem up to the armseye seam. Do not release any of the armseye seam.
- Add extra seam allowance to the front of the jacket only if the jacket fits well in the back. However, if there is not enough seam allowance on the jacket front, some ease may be released from the back side seam allowance.
- Stitch the new seam line, tapering it from the armseye seam down to the hem.
- Trim the seam as needed and press it open.

Apparel for Different Lifestyles and for Special Needs

Read each situation and determine the clothing needs. Use complete sentences to respond to each item.

1. George's parents have experienced another job layoff. His mother can only buy his school clothes from garage sales or resale stores. How may his clothes be different from those of others in his group?

2. Hilda is expecting a baby in June. What special clothes may she need this spring?

3. Your youngest brother is almost three, and he is learning to dress himself. What type of clothing will your parents buy for him for his birthday?

4. Your friend Jim has broken his leg. What alterations can be made to help him dress easily?

5. Your neighbor, Mr. Hernandez, must move about in a wheelchair. Mrs. Hernandez has asked your mother for suggestions for clothing items that Mr. Hernandez can use comfortably. What should she suggest?

Evaluating the Quality of Apparel and Accessories

List each accessory and apparel item in the left column. Assess the quality of each item using tables 15.1 and 15.2 from the *Apparel and Textiles Production, Management, and Services Reference Book*. Place a √ in the appropriate column to indicate quality level and provide an explanation for each choice in the last column.

Apparel and Accessories	High Quality	Medium Quality	Low Quality	Explanation

Cost of Caring for a Garment

Complete the chart below from information on the hang tags and labels of clothing and from experience with caring for your own clothing. An example is provided.

Description of Garment	Fabric Type	Ornamentation	Cleaning and Care Required	Frequency of Care	Annual Cost of Care
Example: woman's jacket hip length	suede jacket polyester lining	pearl buttons	dry cleaning	once each year	$20

Writing a Letter of Complaint

1. Explain the problem carefully, but briefly.
2. Tell when and where the item or service was purchased.
3. Explain how the purchase was defective.
4. List steps already taken to solve the problem.
5. Detail specific information, such as style numbers or catalog numbers.
6. State the action desired.
7. Keep a copy of the letter of complaint.
8. If a second letter is necessary, include a copy of the first letter.

4444 Anystreet Avenue
Your Town, State 12345
October 15, 19___

Ms. Helpful Adviser
Better Business Bureau
9876 Investigation Street
Your Town, State 12345

Dear Ms. Adviser,

I am writing to inform you of a complaint I have regarding a product I purchased from a mail-order company on April 30. The imported, kidskin handbag I ordered (item #S388P) was manufactured by Purses, Inc. and was ordered from The Coriander Collection, P.O. Box 33445, Anytown, USA 00000.

The lining of the handbag was torn when I received the bag in the mail. It appears that the lining was not attached securely to the bag when manufactured. In addition, the shoulder strap broke the first time I tried to use the bag. I have written the company, The Coriander Collection, three letters during the last six months and have received no response from them. I believe that in all fairness the company should accept my return of the handbag and give me a full refund of $85.39. I am suggesting that the Better Business Bureau investigate my complaint and convince the management of The Coriander Collection to respond to my requests.

I will look forward to your reply and a resolution to my complaint.

Sincerely,

Serious Shopper

Serious Shopper

enclosures: copies of order, payment receipt, and three letters to The Coriander Collection

Consumer Agency Summary

Name of the agency ______________________________

Director of the agency ______________________________

Address of the agency ______________________________

____

Purpose of the agency ______________________________

____

____

Individuals assisted by the agency ______________________________

____

____

Complaints or problems successfully resolved by the agency ______

____

____

____

Information consumers should know about the agency ______

____

____

____

Is this agency helpful, and should it continue to exist? Why? ______

____

____

TA 129

Hiring Good Salespeople

Pretend that you are a supervisor in a retail store and plan to hire a salesperson in the children's clothing department. Which of these applicants would you hire? Write a brief essay explaining your decision.

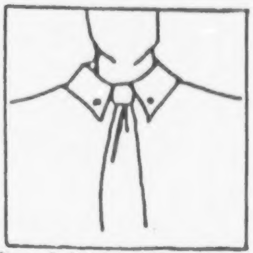
Betty Sue is a warm, friendly woman in her late fifties. She has sold children's apparel and accessories at a large department store for several years. She took a few years off to travel with her husband who recently retired.

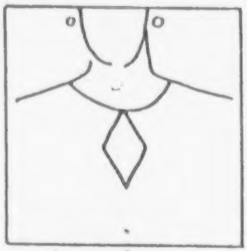
Leona has worked for several years in the receiving and shipping areas of the store where the sales job is open. Because she is getting older and her health is failing, she asked to be transferred to a sales position where she would not have to move or lift boxes. Leona has no experience in dealing with the public.

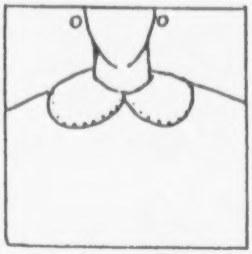
Roy is going to college to get his degree in education. He would like to work part-time to earn money for school. He has four younger brothers and sisters and seems to enjoy being around children.

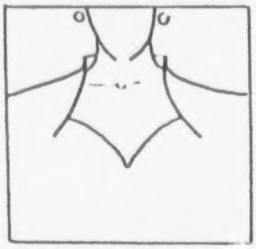
Maggie has two small children of her own and needs to work to help make ends meet. She works the night shift at the hospital and plans to work all day at this second job. She is not able to spend a great deal of time with her family.

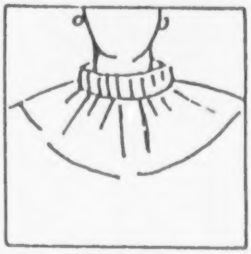
Collars and Necklines

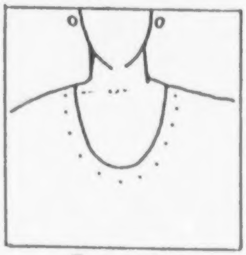

Button-Down

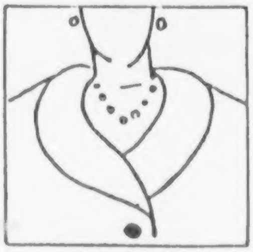

Keyhole

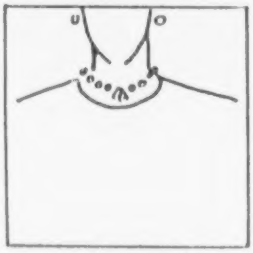

Peter Pan

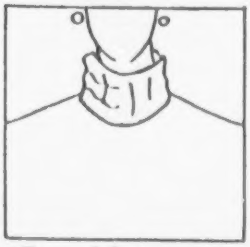

Sweetheart

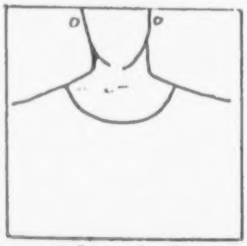

Band

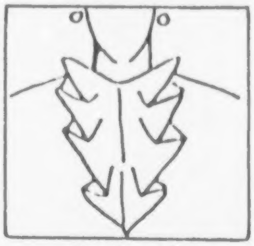

Scoop

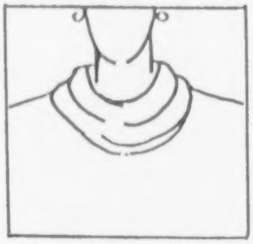

Shawl

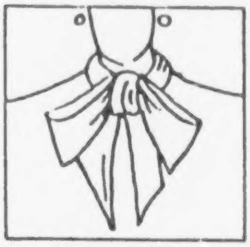

Jewel

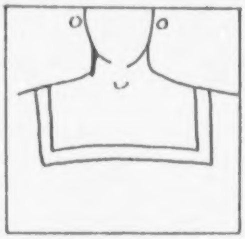

Turtleneck

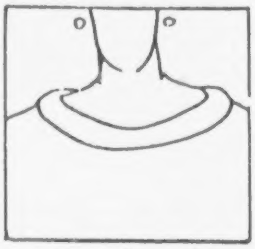

Modified Scoop

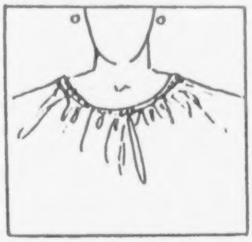

Jabot


Cowl


Bow Tie

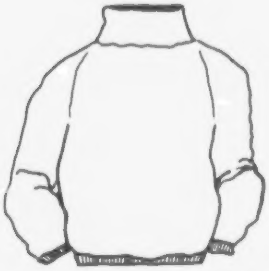

Square

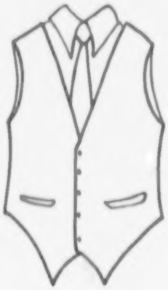

Portrait

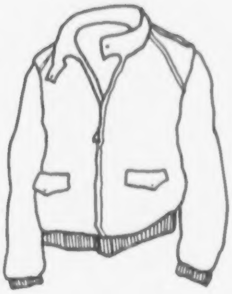

Elasticized

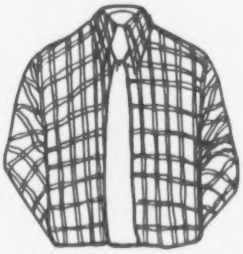
TA 131

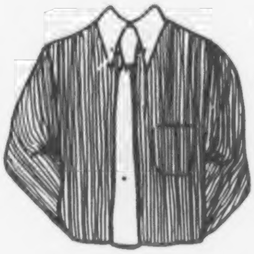
Tops and Bottoms

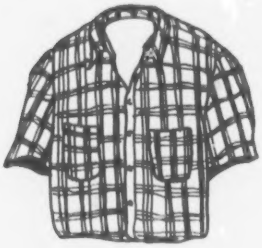


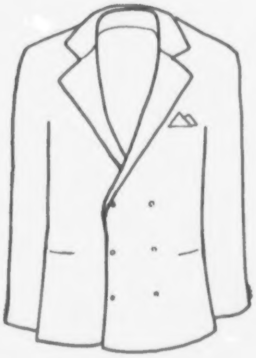


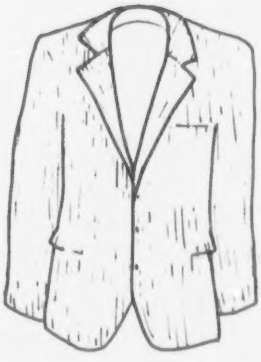












People Watching

Observe fashions worn by men at various public places. Place a ✓ in each appropriate space to describe the shirts worn by the men observed.

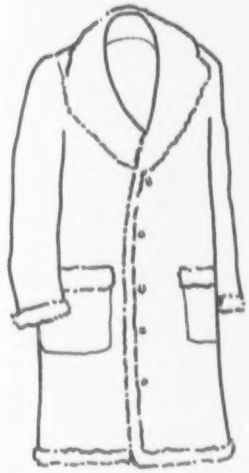
Shirt Type and Traits		Man 1	Man 2	Man 3	Man 4	Man 5
Shirt Type	Sport					
	Work					
	Dress					
Collar Type	Button-down					
	French-style					
	Long-point					
	Standard					
	Tab					
Cuff	French					
	Barrel					

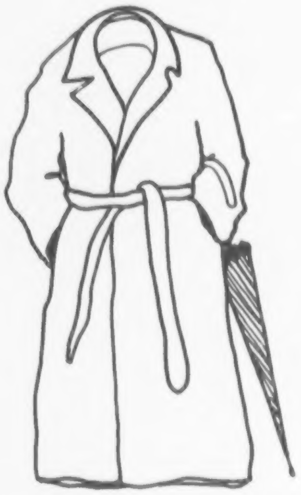
TA 133a

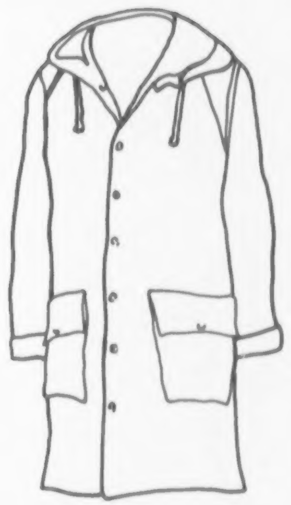
Coats for Various Climates

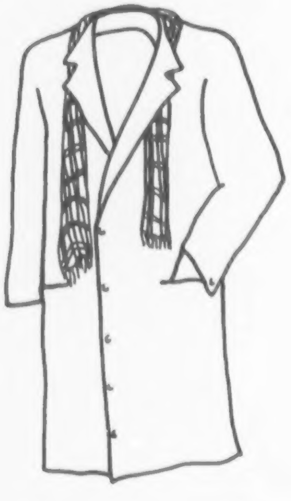
TA 133b

Coats for Various Climates



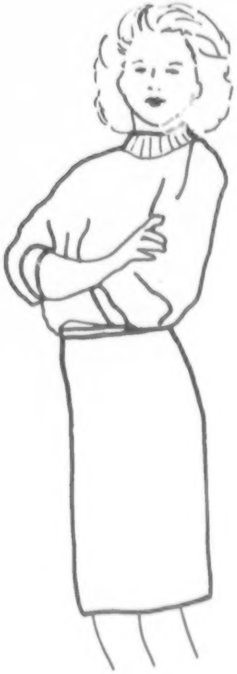


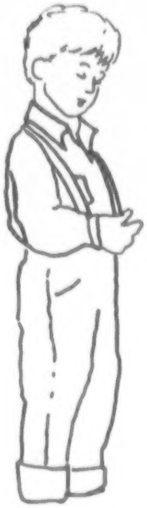


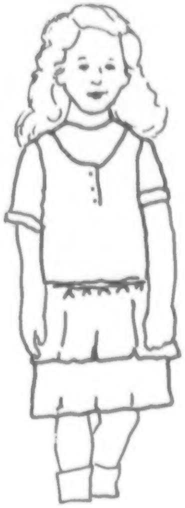


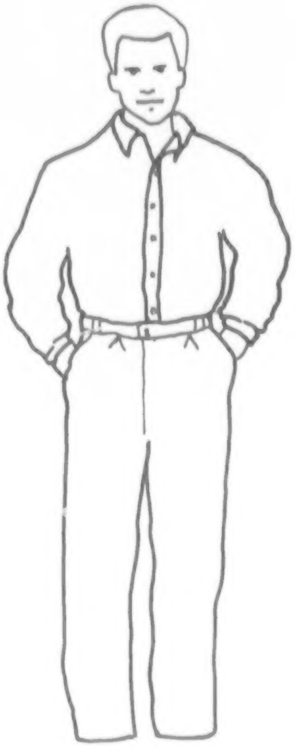
TA 134

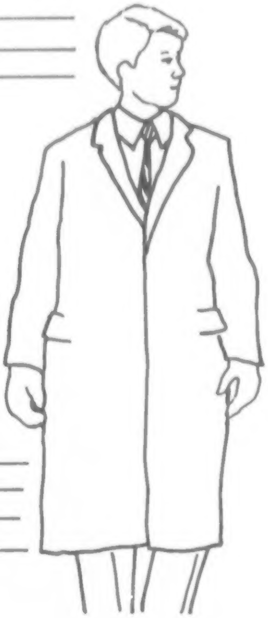
Accessorizing Apparel

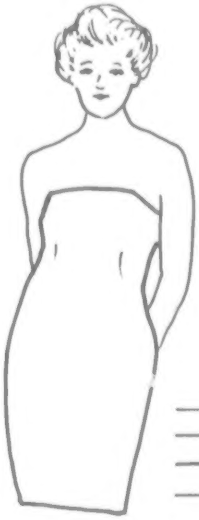












THE ACCESSORY RATING GAME

Observe at least ten people at a public place (such as a mall, church, school, or airport). On the chart below, place a √ in the appropriate columns to identify accessories, complementary apparel, and grooming considerations of each subject. For each subject, add the point values assigned to the items checked. Rate each subject according to the following rating scale: 0-29, Conservative; 30-49, Average; 50 +, Flamboyant.

	Point Value	Accessories and Considerations	Subject									
			1	2	3	4	5	6	7	8	9	10
Apparel	2	bright color										
	4	wild print										
	3	large buttons										
	4	fringe										
General Accessories	5	scarf										
	8	belt (wide, bright colored, decorative)										
	3	gloves										
	3	attaché case										
	3	purse										
	4	tote bag										
	6	bow tie										
	3	necktie										
	5	beret										
	5	felt hat										
	4	cap										
	5	stockings/pantyhose (non-neutral, patterned)										
	5	socks (brightly patterned, contrasting color)										
Jewelry	4	earrings										
	4	necklace										
	3	bracelet										
	3	watch										
	3	ring										
	4	pin										
Shoes	5	bright colored										
	6	multicolored										
	5	ornamentation (bow, tassel)										
	4	boots										
Grooming	7	elaborate hairstyle										
	4	hair ornament (bow, headband, barrette)										
	5	heavy makeup										
	1	clear or light fingernail polish										
	3	bright or dark fingernail polish										
		Totals										

TA 136

Demographic Chart

First Name	Age Category*	Educational Level	Sex	Ethnic Background	Occupation

* Age Categories: Under 13; 13-19; 20-29; 30-44; 45-65; and over 65

Estimating Future Income

Project disposable income, expenses, and discretionary income for yourself using realistic figures. Calculate discretionary income by subtracting necessities (such as food, clothing, shelter, transportation, and utilities) from disposable income.

Annual Disposable Income 5 Years from Today $__________

Annual Expenses for Necessities 5 Years from Today $__________

Annual Discretionary Income 5 Years from Today $__________

Are my plans realistic? Why? ______________________________

____

____

Annual Disposable Income 10 Years from Today $__________

Annual Expenses for Necessities 10 Years from Today $__________

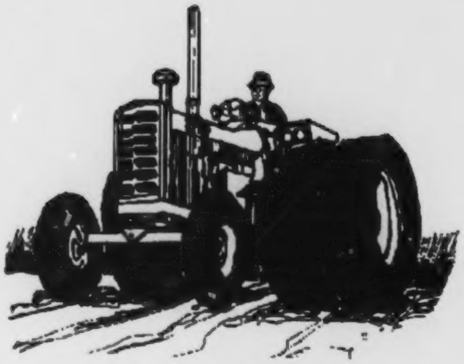
Annual Discretionary Income 10 Years from Today $__________

Are my plans realistic? Why? ______________________________

____

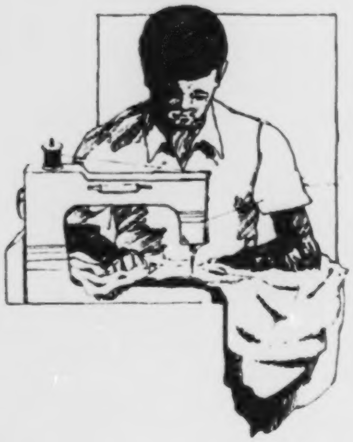
____

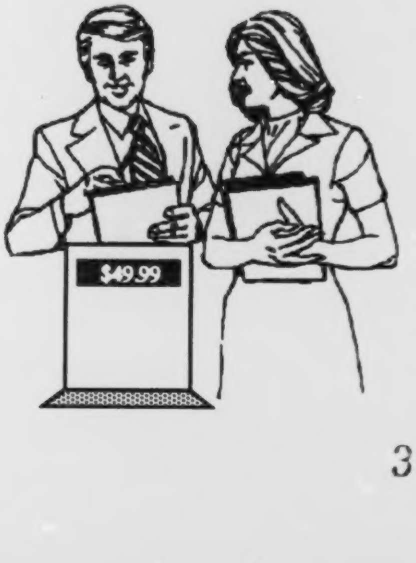
Levels of Promotion in the Fashion Industry



Producer

Manufacturer





Retailer

Sample Press Release

Barbara's Holiday Happenings
1240 Willowbend Road • Anywhere, TX 87654 • (555) 345-6789

For further information call (555) 345-6789, ext. 890

FOR IMMEDIATE RELEASE
Contact: Barbara Brown

Barbara's Holiday Happenings will be on display Saturday, December 18, in the Municipal Park Gazebo. Barbara's holiday collection is her best ever and is sure to excite all of those who enjoy her festive home decorations.

Barbara will receive the prestigious Key to the City award from Mayor Terry Jones at noon. Mayor Jones will speak on the benefits of small businesses and how they have helped the city grow.

Barbara's latest invention of self-cleaning windows will be demonstrated, and a drawing will be held for the installation of one self-cleaning window into the winner's home.

For more information, call Barbara Brown at Barbara's Holiday Happenings, 345-6789, ext. 890.

###

TA 140

PLANNING A FASHION SHOW

Merchandise

Theme

Fashion Show Coordinator

Overall Plan

Models

Audience

Budget

Staging

Dressing Space

Rehearsal

Program

Commentary

Promotion and Publicity

Components of Window Displays

Components used in window displays are listed below. Briefly, describe each component. In addition, list examples of decorative, structural, and functional props in the appropriate spaces.

Merchandise

Functional Props

Decorative Props

Structural Props

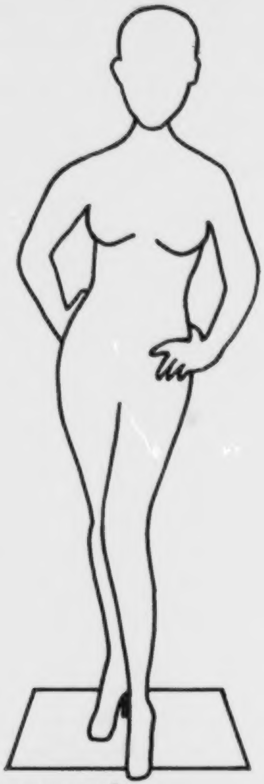
Background

Floor Covering

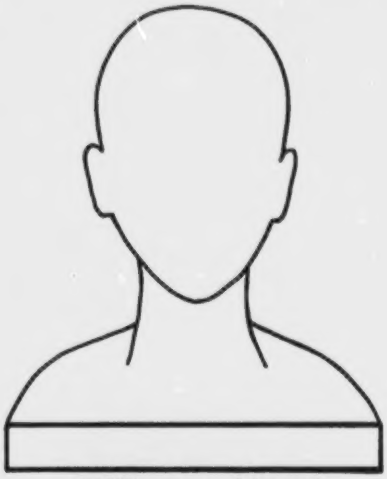
Lighting

TA 142a

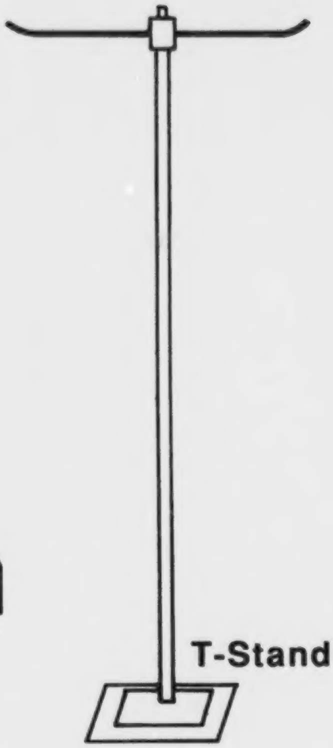
Identifying Fixtures



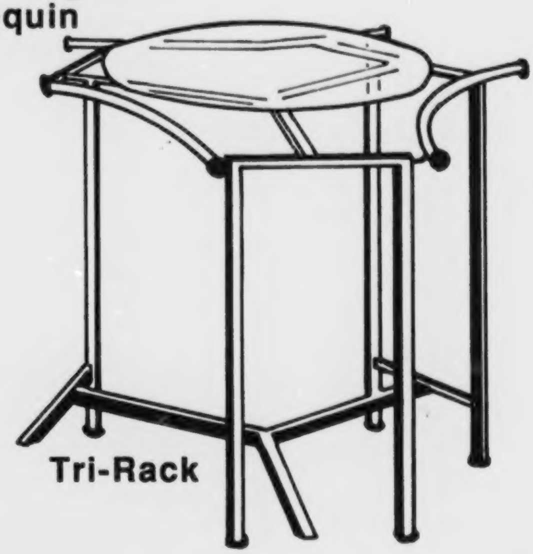
Mannequin



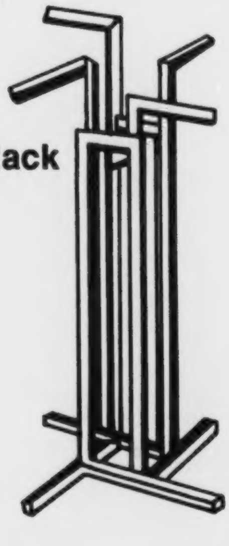
Millinery Head



T-Stand



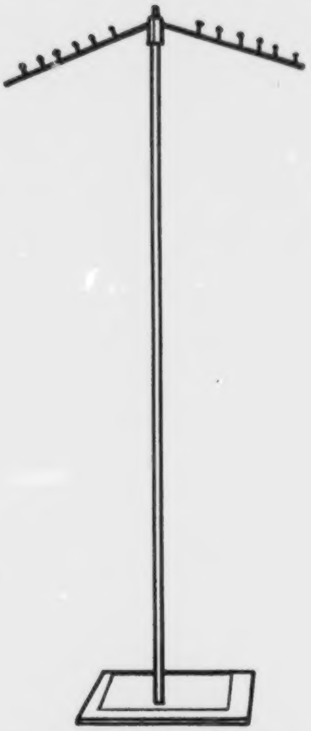
Tri-Rack



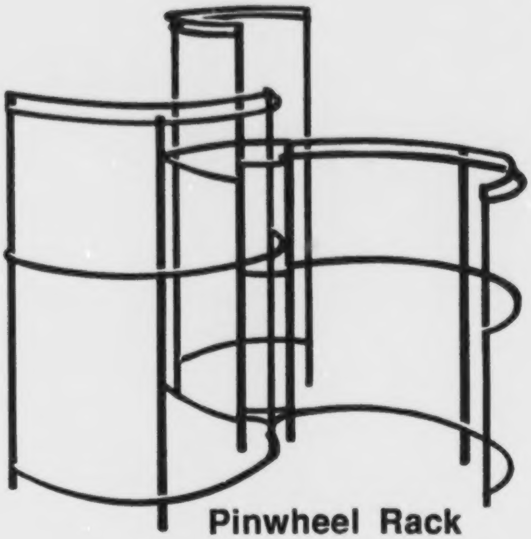
Quad Rack

TA 142b

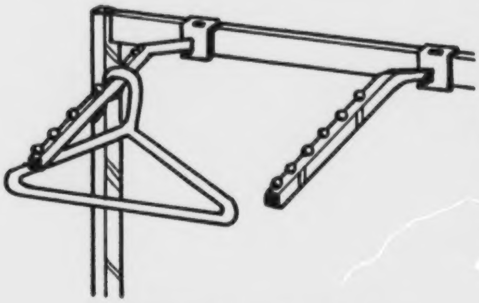
Identifying Fixtures



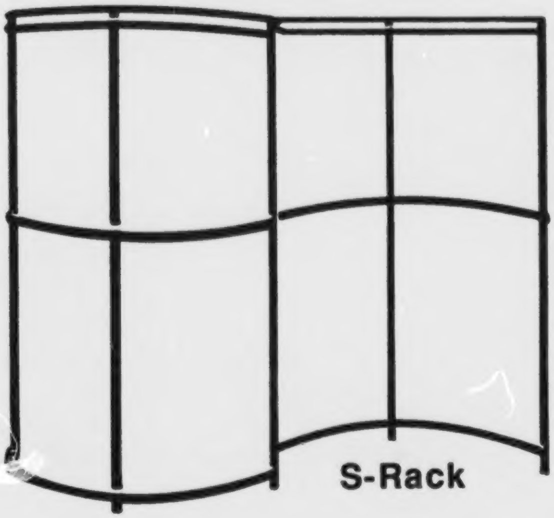
Tent Costumer



Pinwheel Rack

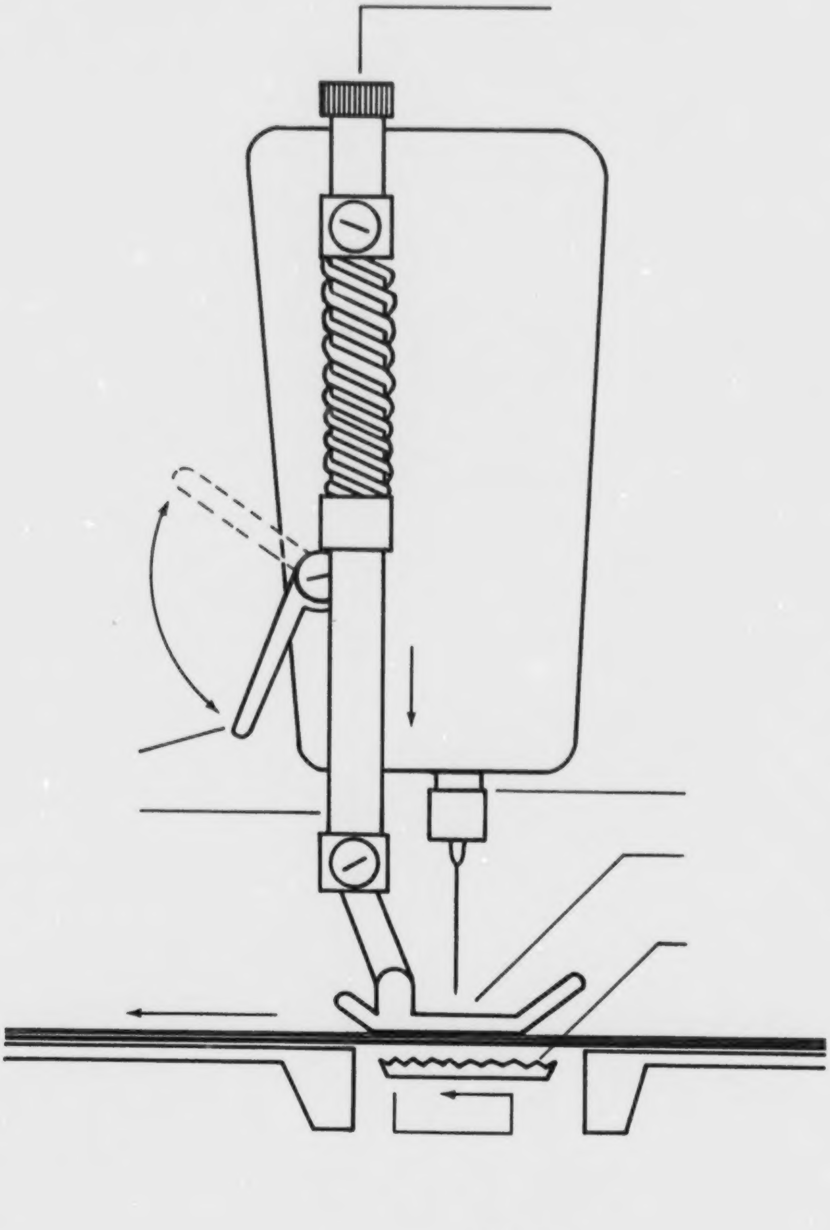


Waterfall Brackets

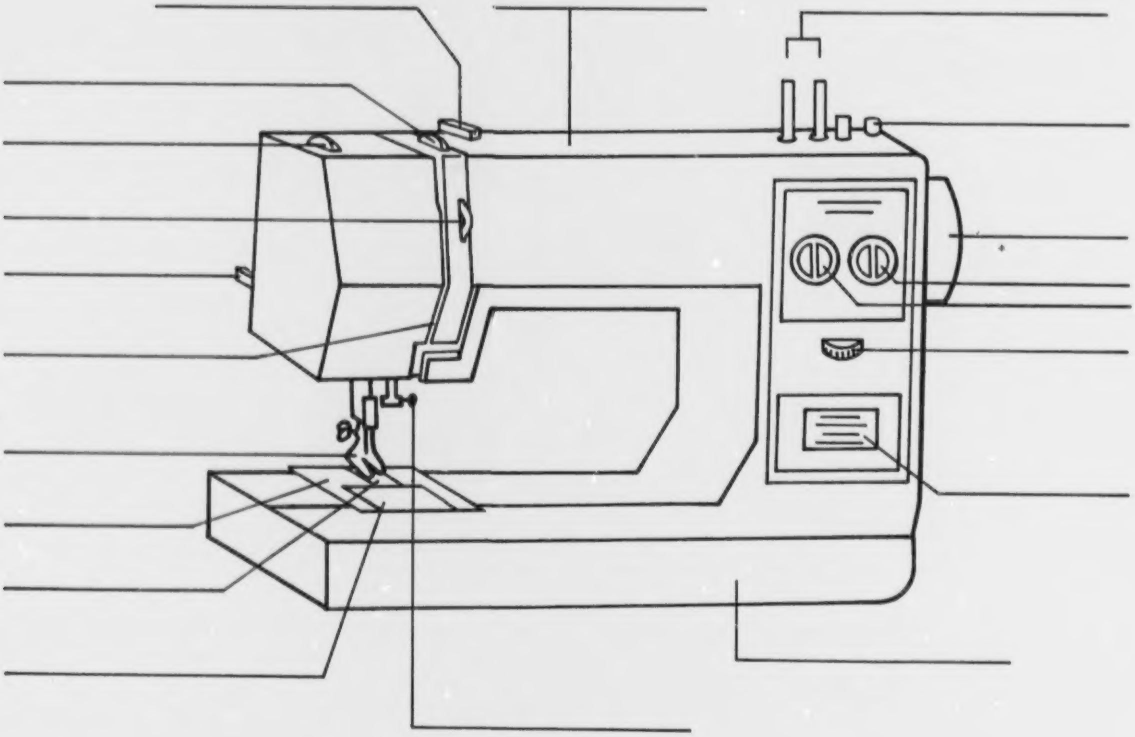


S-Rack

Identifying the Parts of the Sewing Machine

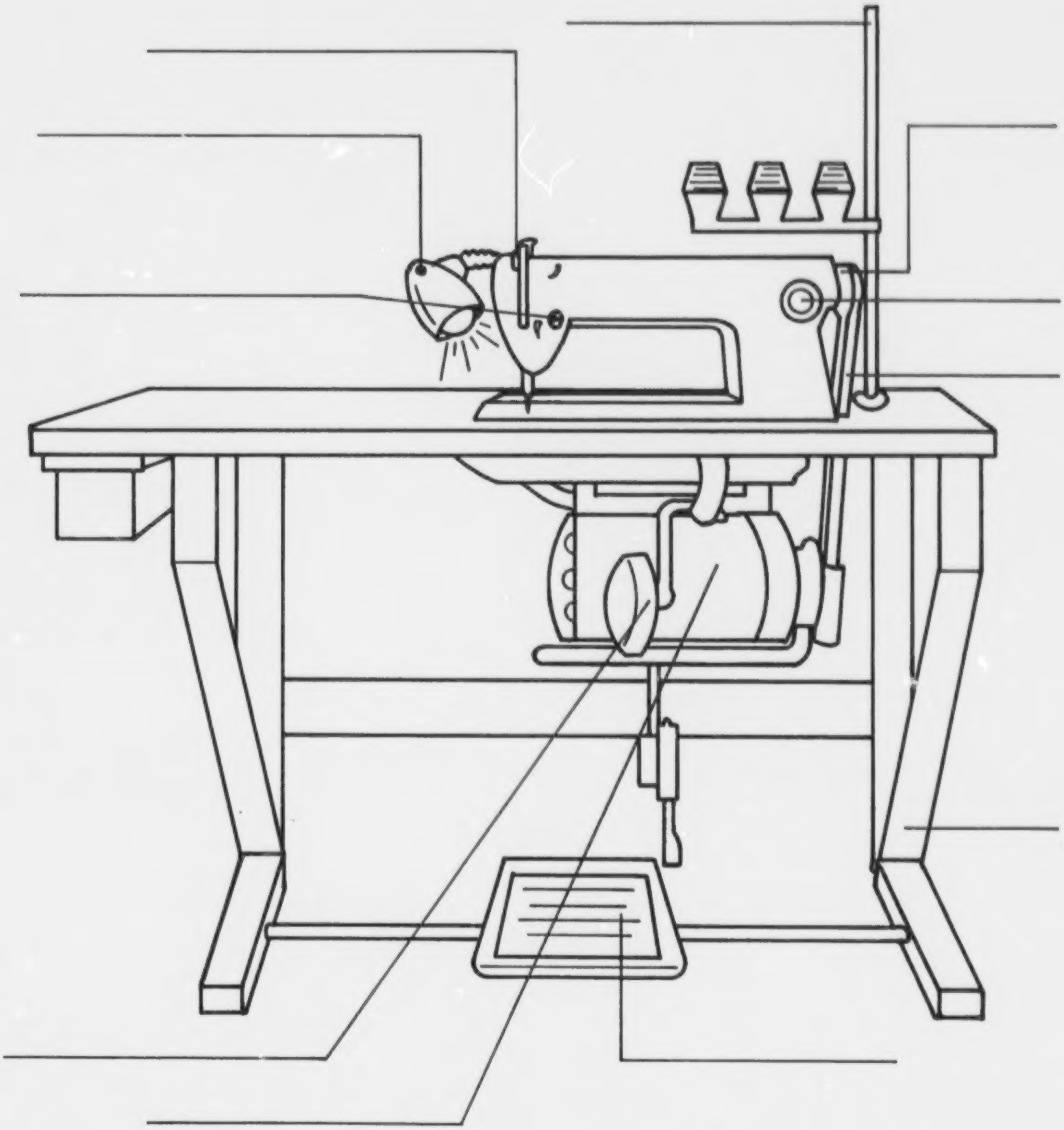


Conventional Sewing Machines



TA 145

Industrial Sewing Machines



TA 146

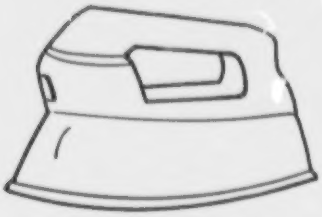
Cleaning a Sewing Machine

Place the following steps in cleaning a sewing machine in the correct order in the spaces provided.

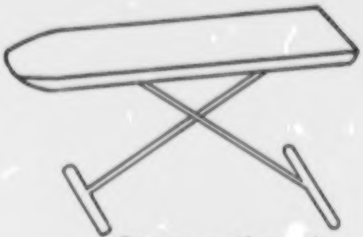
- Clean bobbin and bobbin case with a soft brush.
- Open the slide plate and remove throat plate.
- Move the needle bar to its lowest position.
- Disconnect the machine from the outlet.
- Wipe needle bar with a soft cloth.
- Remove lint from feed and bobbin case area.
- Tilt machine head back.
- Remove old oil with soft, clean cloth.
- Wipe the base of the machine with a soft cloth.

1. ____________________
2. ____________________
3. ____________________
4. ____________________
5. ____________________
6. ____________________
7. ____________________
8. ____________________
9. ____________________

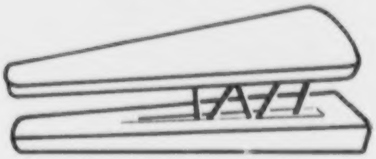
Pressing Equipment
Conventional



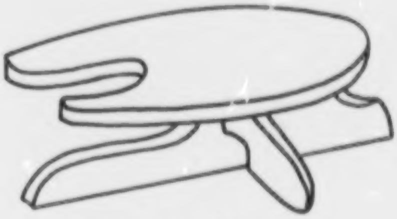
Temperature Regulated Iron



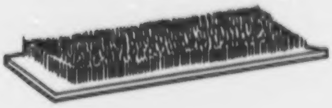
Conventional Ironing Board



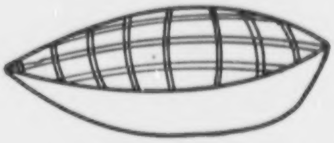
Sleeve Board



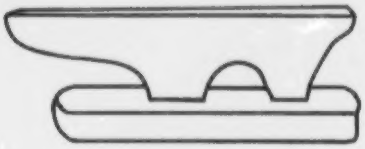
Tailor's Board



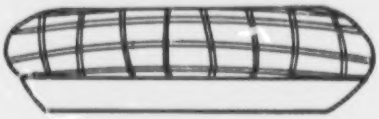
Needle Board



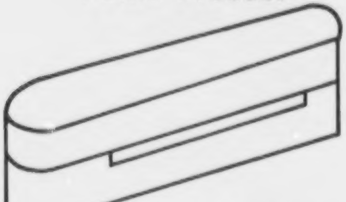
Tailor's Ham



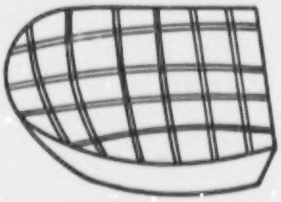
Point Presser



Sleeve Roll



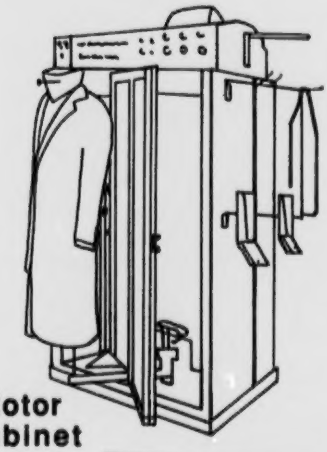
Clapper



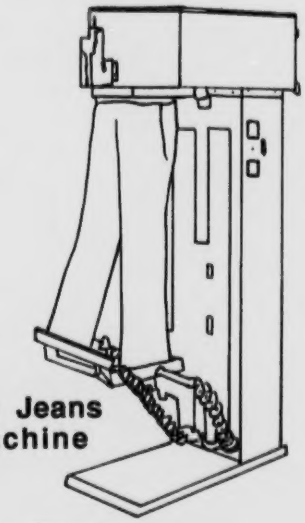
Press Mit

TA 147b

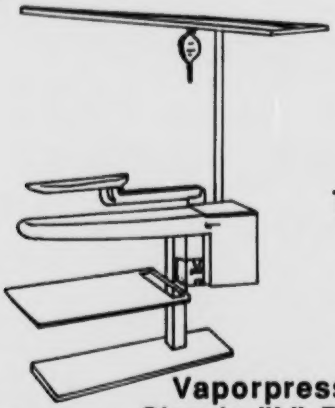
Pressing Equipment
Industrial



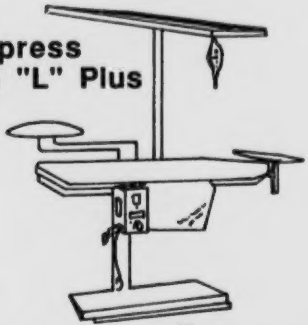
Rotor Cabinet



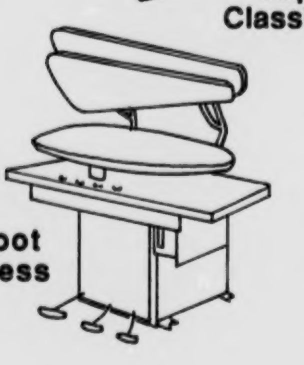
The Jeans Machine



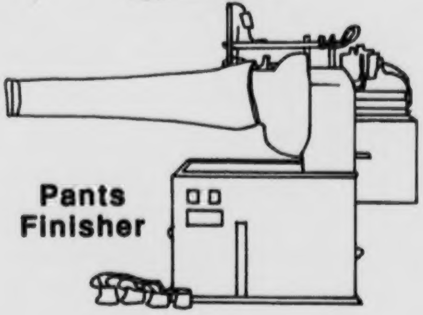
Vaporpress Classic "L" Plus



Vaporpress Traditional "L" Plus



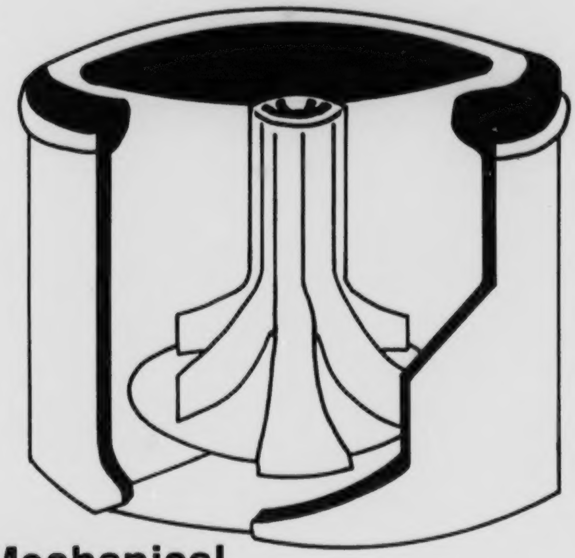
Foot Press



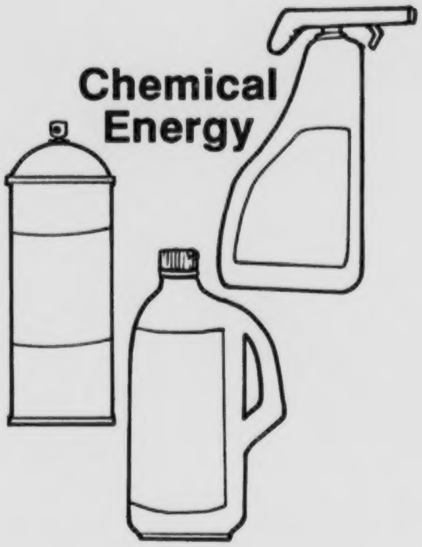
Pants Finisher

TA 148

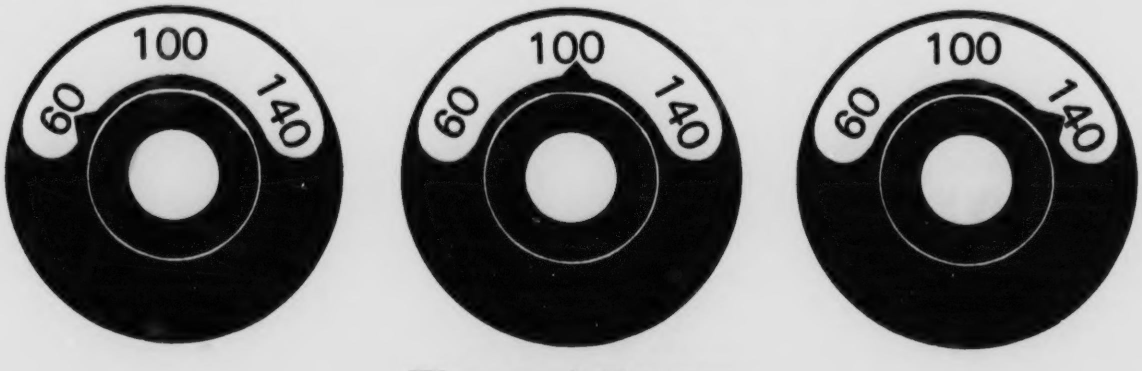
Forms of Energy



Mechanical Energy



Chemical Energy


60
100
140
60
100
140
60
100
140

Thermal Energy

Interviewing Health Inspectors

Name of Inspector ____________________

Agency for Which Inspector Works ____________________

Address of the Agency ____________________

What does the inspector observe upon entering a business? ____________________

With whom does the inspector speak when inspecting a business? ____________________

What forms must the inspector complete when identifying problems a business must correct? ____________________

How does the inspector determine if identified problems have been solved by a business? ____________________

What situations has the inspector found that are dangerous to the health of employees and/or customers? ____________________

Types of Disinfectants

Type	Description	Advantages	Disadvantages
Natural Pine Oil	natural disinfectant	• effectively kills germs when used at a ratio of 80 percent pine oil to 20 percent water	• low kill rate at low dilution ratio • expensive to use since dilution ratio is high.
Iodine	natural disinfectant	• powerful natural disinfectant with a broad range of kill • kills tuberculosis germs	• can stain surfaces and corrode metal (mop buckets) • not recommended for custodial use • should only be used under controlled conditions
Idophor	mixture of iodine and detergent	• is a cleaner/disinfectant • kills germs and removes dirt in a one-step process • works well with hard water • changes its color when ability to disinfect becomes weak • effective in food service areas due to low toxicity	• can create discoloration • less effective in cleaning oily soils • not recommended for general use
Hypochlorites	chemical disinfectant (Household bleach is a common type of hypochlorite.)	• powerful germ killer	• only work on surfaces that are already clean • use themselves up as they kill germs • can corrode some metal surfaces • can dull tile floor and damage grout if used over a long period of time • will oxidize or burn any material • dry hypochlorite can cause a flash fire if used with an oil or soap
Natural Phenols	disinfectant made from carbolic acid	• none	• usually poisonous to humans • corrode metal surfaces • strong odor
Synthetic Phenols	chemical disinfectant	• broad range of kill, including tuberculosis germs • can be used to make cleaner/disinfectants	• will not work with all detergents • are poisonous • will burn skin, irritate eyes, and give off fumes that can damage lungs
Quaternary Ammonium Compounds	chemical disinfectant	• nonpoisonous • have no odor • will not burn skin • good germ killing powers • can be used in food processing areas	• will not kill tuberculosis germs • killing power reduced as more soil is encountered • killing power is slowed by hard water

Adapted from: *Custodial Technician Handbook I, Basic Cleaning Procedures in Custodial/Housekeeping Operations*. Irvine, California: Cleaning Management Institute, Inc., 1989.

Tests

BEST COPY AVAILABLE

CHAPTER ONE TEST
The Textiles and Apparel Industries

Part A: The following are multiple-choice items. Choose the best answer and write the letter of your response in the blank beside each item.

____ 1. The first manufactured fiber produced was
A. rayon.
B. acrylic.
C. nylon.
D. polyester.

____ 2. Sweat shops are
A. apparel manufacturing plants that are very hot.
B. factories that produce athletic apparel.
C. small apparel-producing factories with poor working conditions.
D. apparel design firms that design various types of children's clothing.

____ 3. The till is
A. the sum total of merchandise carried by a store.
B. the removable tray that has divider compartments for different denominations of coins and bills.
C. the money placed in the cash drawer at the beginning of the business day.
D. the amount of money a salesperson earns from each sale.

____ 4. The two types of inventories that are part of most inventory management systems
A. are an estimated count based on records and a physical count.
B. are a written record of all employees' salaries and a performance appraisal for all employees.
C. are a computerized system and a noncomputerized system.
D. are required in all retail businesses.

____ 5. Walter Hunt invented the
A. power loom.
B. sewing machine.
C. first manufactured fiber.
D. cotton gin.

____ 6. Retail began in the United States with
A. malls.
B. department stores.
C. general mercantile stores.
D. grocery stores.

____ 7. Fibers and yarns that can be used to make fabric are called
A. woven fibers.
B. natural fibers.
C. manufactured fibers.
D. textiles.

_____ 8. The Multifiber Arrangement (MFA) is
A. a method for manufacturing fibers such as acrylic and polyester.
B. rules for textile and apparel trade between nations.
C. a method for blending natural fibers with manufactured fibers.
D. a law that prevents a country from exporting more textiles than it imports.

_____ 9. The sum total of merchandise carried by a store is called
A. the till.
B. warehouse merchandise.
C. physical merchandise.
D. stock.

_____ 10. A trade deficit
A. occurs when the value of goods imported into a country is more than the value of goods exported from a country.
B. is an agreement with another country to import apparel products.
C. occurs only in third world countries.
D. is a law regulating the importation of goods to the United States.

Part B: Match the definitions to the terms listed below. Write the correct term in the blank beside each definition given. A term should not be used more than once. Some terms in the list will not be used.

cash sale
charge sale
computerized information systems
exports
imports
inventory
layaway sale
sales commission
sales slip
scanner
statement

_______________ 11. a written record of a sale

_______________ 12. the process of taking an item out of stock and holding it for a customer who agrees to pay for it over a specific period of time

_______________ 13. the amount of money a salesperson earns from each sale

_______________ 14. goods that are received in a country from another country

_______________ 15. a written bill

_______________ 16. the process that involves a customer receiving merchandise and agreeing to pay for it later

_______________ 17. the process of counting merchandise and the sum total or results of the counting process

_______________ 18. a method used to run automated order processing, warehouse, and shipping activities

Part C: Respond to the following items in the spaces provided. Use complete sentences.

19. Briefly describe two major advantages of using CAD and CAM systems in apparel design and manufacturing.

20. Briefly describe how retail has developed in the United States from the early years to the present.

CHAPTER TWO TEST
Job Success in the Textiles and Apparel Industries

Part A: The following are multiple-choice items. Choose the best answer and write the letter of your response in the blank beside each item.

____ 1. The process of developing contacts or exchanging information with others in order to further one's career is called
A. employment.
B. networking.
C. contracting.
D. personalizing.

____ 2. The area of employment involving services provided to customers related to the planning, selection, maintenance, and care of apparel is
A. clothing services.
B. clothing production and management.
C. textiles and clothing design.
D. merchandising, fashion, and retailing.

____ 3. Design studios, print design studios, weaving mills, knitting mills, print plants, and converters are businesses involved primarily in
A. textiles and clothing design.
B. merchandising.
C. clothing services.
D. educating the public regarding fashion.

____ 4. Entry-level jobs are
A. jobs that involve entering information by computer.
B. jobs that require a college degree upon entry.
C. jobs that do not require special training.
D. the highest level jobs available in an employment area.

____ 5. Sales associates, department managers, fashion coordinators, buyers, and stock clerks are examples of jobs in the employment area of
A. clothing services.
B. textiles and clothing design.
C. wholesaling.
D. merchandising, fashion, and retailing.

____ 6. The prevailing style accepted and used by the majority of a group of people at any given time is called a/an
A. style.
B. fad.
C. fashion.
D. haute couture fashion.

____ 7. The process by which fabric is changed into finished garments for purchase by consumers is called
A. merchandising.
B. clothing production.
C. retailing.
D. textiles and clothing design.

_____ 8. A person with at least a bachelor's degree in one area of home economics is referred to as a/an
A. buyer.
B. home economist.
C. freelance worker.
D. entrepreneur.

_____ 9. Which of the following states has the largest number of apparel manufacturers in this country?
A. Texas
B. California
C. North Carolina
D. New York

_____ 10. A business that develops ideas for looks or clothing designs, selects the fabric for the designs, and markets the finished products is called a/an
A. franchiser.
B. wholesaler.
C. jobber.
D. contractor.

Part B: Match the definitions to the terms listed below. Write the correct term in the blank beside each definition given. A term should not be used more than once. Some terms in the list will not be used.

apprentice
capital
capitalism
converter
entrepreneur
fashion apparel
franchise
greige goods
piece goods
private label merchandise
staple apparel

______________ 11. clothing items for which demand is based more on consumer replacement needs than on wants

______________ 12. a right or license granted to an individual or group to market a company's goods or services

______________ 13. a business that buys gray goods and sells them to cutters, wholesalers, retailers, and others

______________ 14. knitted or woven fabrics in an unfinished state

______________ 15. a person trained by working with another person who is skilled at a particular job

______________ 16. goods made specifically for a particular retailer which appear in the store with the store's name on the label

______________ 17. a person who owns and operates his or her own business

______________ 18. items that experience styling changes from season to season based on the wants and demands of customers

Part C: Respond to the following items in the spaces provided. Use complete sentences.

19. List eight general qualities needed for successful employment in any job and briefly describe the importance of each.

20. Name the four types of degrees available through colleges and universities and briefly describe the requirements for each.

CHAPTER THREE TEST
Maintaining Customer Relations

Part A: The following are multiple-choice items. Choose the best answer and write the letter of your response in the blank beside each item.

_____ 1. Personality traits that indicate a need for self-improvement are
A. truthfulness and honesty.
B. neatness and courtesy.
C. extreme shyness and chronic sadness.
D. ambition and poise.

_____ 2. __________ is an important part of verbal communication.
A. Using correct grammar
B. Using the latest slang terms
C. Always referring problems to other employees
D. Facial expression

_____ 3. The visible aspect of one's character as it is presented to others is __________.
A. a demonstration
B. tact
C. communication
D. personality

_____ 4. Which of the following traits help create a positive image?
A. extreme shyness and assignment of tasks to other people
B. allowing the telephone to ring several times before answering it
C. a sense of humor, neatness, and courtesy
D. always reporting other employees' mistakes to the supervisor

_____ 5. If one has a trait or aspect of physical appearance that is not positive, the best action to take is to
A. decide that most traits simply cannot be changed and learn to live with it.
B. try to improve the trait if it can be changed.
C. tell the supervisor that the trait cannot be changed.
D. ignore the weakness or negative trait.

_____ 6. The main advantage of presenting a demonstration to a customer is that
A. the customer can see that the item possesses the traits described by the salesperson.
B. demonstrations are fun.
C. demonstrations require less time to present than just allowing the customer to look at the merchandise.
D. customers always buy items when they see a demonstration.

_____ 7. Which of the following practices is **not** appropriate telephone communication behavior?
A. keeping important telephone numbers near the telephone
B. speaking clearly and distinctly
C. interrupting the caller if other employees need assistance
D. identifying oneself when placing a call

_____ 8. A question used at the end of a sales transaction to encourage the customer to confirm his or her choice of merchandise is a/an
A. approach.
B. form of nonverbal communication.
C. type of telephone communication.
D. positive sales closer.

_____ 9. When a customer is dissatisfied and complains about the merchandise or service, it is best to
A. suggest that the customer try another business.
B. defend the store and tell the customer that he or she just does not understand.
C. view the customer complaint as a nuisance and report it to co-workers.
D. listen intently to the customer's complaint and let the customer know that the business wishes to resolve the problem.

_____ 10. Examples of apparel and textiles businesses that sell services to customers are
A. dry cleaners, alteration establishments, and personal shopping services.
B. wholesalers and manufacturers.
C. tailors and florists.
D. retailers who sell only ready-made apparel and shoe stores.

Part B: Match the definitions to the terms listed below. Write the correct term in the blank beside each definition given. A term cannot be used more than once. Some terms in the list will not be used.

approach
attitude
comparison shopper
consumer
customer
empathy
follower
impulse buyer
positive sales closer

_______________ 11. a person who makes a purchase rapidly without much thought

_______________ 12. a person's general manner or feeling toward a situation or person

_______________ 13. a person who purchases goods or services from a retailer

_______________ 14. the greeting used to gain a potential customer's attention

_______________ 15. the ability to see and feel something the way another person sees and feels

_______________ 16. a person who visits a store to gain information about merchandise such as prices, product availability, and quality of merchandise

_______________ 17. a person who usually chooses only products with well-known reputations and is easily influenced to buy products used by a respected person or close friend

_______________ 18. a person who uses goods or services purchased from a retailer

Part C: Respond to the following items in the spaces provided. Use complete sentences.

19. What is the difference in verbal and nonverbal communication? What are seven basic rules of conversation used by successful communicators?

20. What are five character traits needed for successful customer relations? Give a brief definition or description of each of the five character traits.

CHAPTER FOUR TEST
Safety and Sanitation

Part A: The following are multiple-choice items. Choose the best answer and write the letter of your response in the blank beside each item.

_____ 1. A federal agency that enforces safety regulations is the
- A. Job Training Partnership Agency (JTPA).
- B. Federal Job Safety Program (FJSP).
- C. Occupational Safety and Health Administration (OSHA).
- D. Department of Commerce (DOC).

_____ 2. A fire involving wood, paper, or rubbish is classified as a
- A. class A fire.
- B. class B fire.
- C. class C fire.
- D. class ABC fire.

_____ 3. A fire involving gas, grease, paint, lacquer, or other liquids is classified as a
- A. class A fire.
- B. class B fire.
- C. class C fire.
- D. class ABC fire.

_____ 4. If a small fire develops in the workplace,
- A. everyone should leave the room.
- B. flour or baking soda should be thrown on the fire.
- C. water should be sprayed on the fire.
- D. a trained employee should take a charged extinguisher to the fire immediately.

_____ 5. If an electrical fire occurs on the job,
- A. water should be sprayed on the fire.
- B. the electrical power should be switched off at the breaker switch.
- C. a fire extinguisher for class A fires should be used to extinguish it.
- D. a fire extinguisher for class B fires should be used to extinguish it.

_____ 6. When a safety hazard is discovered in the workplace, the employee should
- A. repair or correct the hazard.
- B. report it to a department manager or supervisor.
- C. ignore it.
- D. warn other employees of danger.

_____ 7. A tourniquet should be used
- A. to put out small fires.
- B. in cases of massive bleeding that cannot be controlled using other methods.
- C. to maintain breathing and increase the victim's pulse rate.
- D. to prevent choking.

_____ 8. A procedure used to dislodge an obstruction when a person is choking is called
- A. cardiopulmonary resuscitation (CPR).
- B. the diaphragm procedure.
- C. throat thrusts.
- D. the Heimlich maneuver.

_____ 9. To prevent electrical shock, one should
A. pull on an electrical cord only by the cord when disconnecting it from the wall outlet.
B. unplug electrical equipment from the equipment first, then disconnect the equipment from the wall outlet.
C. never handle electrical equipment while hands are wet.
D. make sure an appliance is turned on before plugging it into an electrical outlet.

_____ 10. Laws that include plans for payments to employees or their dependents when physical disabilities, injuries, or deaths are caused by employment are
A. safety laws.
B. worker's compensation laws.
C. environmental concern laws.
D. Occupational Safety and Health Laws of 1970.

_____ 11. A burn causing the skin to be partly destroyed and charred is classified as a
A. first degree burn.
B. second degree burn.
C. third degree burn.
D. moderately severe burn.

_____ 12. If a chemical is spilled on a person's skin,
A. the person should go to the doctor immediately.
B. a tourniquet should be used to protect the person's skin.
C. the affected area should be placed under flowing, fresh, clean water.
D. CPR should be used.

_____ 13. To rescue a person from electrical shock,
A. CPR should be used before any other procedure is followed.
B. a material such as an aluminum ladder should be used to move the person away from the source of the electrical source.
C. abdominal thrusts should be used.
D. the master switch for the electrical control box should be turned off.

Part B: Match the definitions to the terms listed below. Write the correct term in the blank beside each definition given. A term should not be used more than once. Some terms in the list will not be used.

activated charcoal
cardiopulmonary resuscitation
carpal tunnel syndrome
certificates of occupancy
epsom salts
ergonomics
fatigue
first aid
immobilize
inspection permission papers
negligence
pressure points
shock
stretcher
syrup of ipecac
tourniquet

______________ 14. a condition involving tendon irritation and swelling of the wrist

______________ 15. the physiological and psychological study of work

______________ 16. a device used to stop bleeding such as a bandage twisted around an arm or leg

______________ 17. areas on the scalp, face, neck, chest, arm, and leg where pressure may be applied in order to stop severe bleeding

______________ 18. the condition of weariness caused by exertion or stress

______________ 19. failure to use a reasonable amount of care when such failure results in injury or damage

______________ 20. a serious condition that results from depression of vital body functions

______________ 21. a lifesaving method involving artificial respiration while attempting to restart the victim's heartbeat

______________ 22. a procedure that involves holding or positioning a person so that a part of the body cannot move

______________ 23. documents issued by building inspectors after approval of a building for business use

______________ 24. a product used to induce vomiting

Part C: Answer the following question in the space provided. Use complete sentences.

25. What are the possible penalties for a business that fails to comply with OSHA's violation notices?

CHAPTER FIVE TEST
Goals, Policies, and Procedures

Part A: The following are multiple-choice items. Choose the best answer and write the letter of your response in the blank beside each item.

_____ 1. A broad statement that explains the purpose or direction of a company is a/an
A. organizational chart statement.
B. description of the chain of command.
C. code of ethics.
D. mission statement.

_____ 2. A performance appraisal is
A. a process used when interviewing a potential employee.
B. a process used to evaluate an employee.
C. a process used to discipline an employee.
D. a method used to collect information for an incident file.

_____ 3. A group of employees who join together to have a stronger voice with management is a/an
A. labor union.
B. closed shop.
C. open shop.
D. standard operating union.

_____ 4. Voluntary relinquishing of a job by an employee is called
A. dismissal.
B. termination.
C. resignation.
D. grievance.

_____ 5. Vacation leave (annual leave) and sick leave are examples of
A. employee benefits.
B. labor union procedures.
C. disciplinary actions.
D. OSHA regulations.

_____ 6. If an employee is injured while on the job, he or she should immediately
A. report the injury to a supervisor.
B. leave the place of employment.
C. ignore it.
D. warn other employees about job-related injuries.

_____ 7. Standard operating procedures (SOPs) are used for
A. employees receiving incentives.
B. employees receiving minimum wage.
C. tasks done on a regular basis.
D. employees who are members of labor unions.

_____ 8. A compensation plan that offers each employee a specified amount of money for a specific number of hours worked is called

A. straight salary.
B. salary plus commission-over-quota.
C. salary plus commission.
D. straight commission.

_____ 9. The possible disadvantage of paying employees straight commission is

A. salespeople are not aggressive enough since they know they will receive a specific salary.
B. salespeople become too aggressive in trying to sell merchandise to customers.
C. employees on this compensation plan receive only minimum wage.
D. employees must be members of labor unions.

_____ 10. A written summary of a specific position including major responsibilities of the person holding the position is a/an

A. policy manual.
B. performance appraisal.
C. incident file.
D. job description.

Part B: Match the definitions to the terms listed below. Write the correct term in the blank beside each definition given. A term should not be used more than once. Some terms in the list will not be used.

compensation
ethics
goal
grievance
incentive
incident file
minimum wage
orientation
policy
procedure
rotation schedule
salary plus commission
shift
straight commission

_______________ 11. something a person or organization works to attain

_______________ 12. a collection of information that establishes and verifies an employee's job performance

_______________ 13. the process used to help new employees become familiar with a business

_______________ 14. the principles and standards of conduct that govern a profession

_______________ 15. an overall plan that states the goals and operating procedures of an organization

_______________ 16. payment for work done

_______________ 17. an employee's formal expression of disagreement regarding a job-related situation

_______________ 18. a list of step-by-step guidelines that helps employees perform jobs efficiently with the same results each time

_______________ 19. a reward that acts as motivation for an employee to be as productive as possible

_______________ 20. a compensation plan that pays an employee a specific percentage of the total volume sold

CHAPTER SIX TEST
Textiles and Apparel: Terminology, Use, and Care

Part A: The following are multiple-choice items. Choose the best answer and write the letter of your response in the blank beside each item.

_____ 1. Wool, silk, cashmere, mohair, and alpaca are examples of
A. bast fibers.
B. vegetable fibers.
C. animal fibers.
D. manufactured fibers.

_____ 2. Wool that is made from previously produced wool fabric through a reprocessing procedure is classified as
A. virgin wool.
B. recycled wool.
C. new wool.
D. specialty wool.

_____ 3. A yarn made of two or more fibers spun together is called a
A. blended yarn.
B. ratine yarn.
C. single-ply yarn.
D. felted yarn.

_____ 4. When lengthwise and crosswise yarns are at right angles in a fabric, the fabric is
A. off-grain.
B. tentered.
C. napped.
D. on-grain.

_____ 5. The feel of a fiber such as silky, soft, or crisp is known as
A. hand.
B. luster.
C. cohesiveness.
D. elongation.

_____ 6. The last stage in yarn manufacturing is
A. carding.
B. picking.
C. spinning.
D. drawing.

_____ 7. Flax, hemp, jute, and ramie are types of
A. manufactured fibers.
B. specialty hair fibers.
C. animal fibers.
D. bast fibers.

_____ 8. When a generic fiber is changed only slightly, the resulting fiber is called a/an
A. manufactured fiber.
B. variant.
C. azlon.
D. lastrile.

_____ 9. The number of strands or yarns twisted together is referred to as
A. denier.
B. selvage.
C. ply.
D. weft.

_____ 10. Noncellulosic fibers are made from
A. flax.
B. hemp.
C. colorfast fibers.
D. molecules containing different combinations of carbon, hydrogen, nitrogen, and oxygen.

_____ 11. When fabric has a fluffy, soft texture resulting from brushing up fiber ends that extend from the surface, the fabric is
A. napped.
B. stock dyed.
C. screen printed.
D. mercerized.

_____ 12. The process of forcing a liquid solution through small holes in a spinneret is called
A. extrusion.
B. denier.
C. scouring.
D. hackling.

_____ 13. The first manufactured fiber was
A. acetate.
B. rayon.
C. cellulose.
D. hemp.

_____ 14. The following are examples of manufactured fibers:
A. polyester, cotton, and linen
B. polyester, rayon, and acrylic
C. wool, ramie, and cashmere
D. nylon, linen, and acetate

_____ 15. A style that continues to be accepted, to some degree, over an extended period of time is called a
A. fashion.
B. fad.
C. classic.
D. design.

_____ 16. A group of clothing designed and manufactured by a firm or a designer is called a
A. fad.
B. line.
C. classic.
D. forward fashion.

_____ 17. The life span of a fashion is known as a
A. fad.
B. fashion cycle.
C. generic name.
D. trademark.

Part B: Match the definitions to the terms listed below. Write the correct term in the blank beside each definition given. A term should not be used more than once. Some terms in the list will not be used.

bonding
bouclé yarn
carding
cloth
fabric
felting
filament fiber
hackling
polymers
selvage
simple yarn
staple
textiles
tow
trademark
yarn

______________ 18. a continuous strand of textile fibers, filaments, or material used to make fabric

______________ 19. a process used on fibers such as flax to separate long fibers from short ones and remove the short ones

______________ 20. the narrow woven edge made with special, strong yarns that are woven tightly to prevent raveling

______________ 21. a stage in the process of manufacturing fiber accomplished by crimping and cutting tow into short lengths of about 1-4"

______________ 22. cloth made from any textile fiber by a construction method such as weaving or knitting

______________ 23. long chains of molecules

______________ 24. materials such as fibers and yarns that are used to make fabric

______________ 25. large bundles of continuous monofilaments assembled but not twisted together

______________ 26. one long, continuous fiber

______________ 27. a generic term for all textile fabrics

______________ 28. a process that separates short wool fibers from long ones

______________ 29. a brand name

Part C: Respond to the following item in the space provided. Use complete sentences.

30. List the stages involved in the wool and worsted spinning systems and briefly explain each stage.

CHAPTER SEVEN TEST
Selection of Fabrics and Notions for Garment Design

Part A: The following are multiple-choice items. Choose the best answer and write the letter of your response in the blank beside each item.

_____ 1. If constructing a coat for cold weather, the best choice of fabric might be
- A. bottom-weight fabric.
- B. medium-weight fabric.
- C. heavyweight fabric.
- D. very heavyweight fabric.

_____ 2. Two-way prints are
- A. fabrics that have nap running in two directions.
- B. fabrics that have motifs facing both directions.
- C. sueded fabrics.
- D. fabrics that have been screen printed.

_____ 3. A motif is
- A. one design printed on a fabric.
- B. a fabric used to prevent sagging and stretching.
- C. a garment design that appears on the front of each pattern envelope.
- D. a type of notion used for darning.

_____ 4. Examples of shaping aids are
- A. boning, stays, and weights.
- B. waistband stiffenings and woven elastic.
- C. fusible patch iron-ons.
- D. appliqués and medallions.

_____ 5. Items other than fabric that are used in garment construction such as thread, button, and zippers are called
- A. notions.
- B. patterns.
- C. motifs.
- D. interlining.

_____ 6. A zipper that opens at both the top and bottom is called a/an
- A. two-way zipper.
- B. conventional zipper.
- C. separating zipper.
- D. invisible zipper.

_____ 7. If one is gathering or shirring on a sewing machine, the best thread to use on the bobbin is
- A. embroidery floss.
- B. extra-fine thread.
- C. elastic thread.
- D. basting thread.

_____ 8. To check the grain of fabric, one should
A. rub the surface of the fabric to see which direction the nap runs.
B. feel of the fabric to determine the weight.
C. fold the fabric back on itself, with the selvages matched.
D. determine the properties of the fabric by reading the care label.

_____ 9. When estimating the amount of yardage needed for a pattern, which of the following items may be useful?
A. a list of notions required
B. a fabric width conversion chart
C. a fabrication chart
D. a layout illustration showing the grain, nap, and hand

_____ 10. Appropriate fabrics for constructing tailored garments are
A. crisp fabrics such as linen and wool.
B. sheer fabrics such as chiffon.
C. soft fabrics such as crepe and challis.
D. only those made from manufactured fibers.

_____ 11. Warp and filling yarns
A. should be parallel to a folded line on the pattern.
B. should intersect at right angles.
C. are usually off-grain.
D. cannot be straightened satisfactorily.

_____ 12. A disadvantage of using fusible interfacing as a shaping fabric is that
A. the iron does not have to be used to attach the interfacing to the garment.
B. it adds softness to a garment.
C. it cannot be washed easily.
D. it tends to add rigidity to the garment fabric.

Part B: Match the definitions to the terms listed below. Write the correct term in the blank beside each definition given. A term should not be used more than once. Some terms in the list will not be used.

fabrication
gigging
interlining
lining
pile fabrics
repeat
sueded fabrics
underlining
weight
yardage

______________ 13. the amount of fabric necessary for a floral or geometric pattern to duplicate itself totally on a print fabric

______________ 14. the process used to create napped fabric

______________ 15. fabrics with cut or uncut loops that stand up densely on the surface

______________ 16. a layer of fabric constructed separately from the garment and attached to the garment to add shape and wear and provide a finished look inside the garment

_______________ 17. the process of selecting or creating an appropriate garment style for a fabric or selecting the right fabric for a garment design

_______________ 18. fabrics that have textured surfaces as a result of fiber ends being brushed up onto the surface

_______________ 19. the amount of fabric needed for a particular sewing project

Part C: Respond to the following question in the spaces provided. Use complete sentences.

20. Pretend that you are working as a custom sewer. Your client has selected a dress pattern for the project. The pattern envelope does not provide the estimated yardage for the exact width of fabric the client has selected. How could you determine how much fabric to buy for the project?

CHAPTER EIGHT TEST
Elements and Principles of Design

Part A: The following are multiple-choice items. Choose the best answer and write the letter of your response in the blank beside each item.

_____ 1. All lines used in design are
A. horizontal.
B. vertical.
C. either straight or curved.
D. used to indicate length

_____ 2. The primary colors are
A. violet, green, and orange.
B. red, yellow, and blue.
C. blue-green, yellow-orange, and blue-violet.
D. red, blue, and violet.

_____ 3. Tones are formed by
A. adding an intense hue to a dull hue.
B. combining a light hue and a dark hue.
C. combining two primary colors.
D. adding both black and white to a hue.

_____ 4. The three classic silhouettes are
A. shape, form, and line.
B. bell, tubular, and back fullness.
C. diagonal, tubular, and curved.
D. bell, tubular, and curved.

_____ 5. A color scheme involving use of colors that are direct opposites on the color wheel is called a/an
A. analogous color scheme.
B. complementary color scheme.
C. monochromatic color scheme.
D. split complementary color scheme.

_____ 6. In a garment made from a solid colored fabric, the most noticeable lines are
A. curved lines.
B. vertical lines.
C. decorative lines.
D. structural lines.

_____ 7. The aspect of clothing that is most often noted and remembered is
A. texture.
B. color.
C. balance.
D. line.

_____ 8. A color scheme containing two or more variations of the same hue is called a/an
A. analogous color scheme.
B. complementary color scheme.
C. monochromatic color scheme.
D. split complementary color scheme.

______ 9. Diagonal lines
- A. give a feeling of strength and severity.
- B. express excitement and movement by breaking monotony.
- C. suggest grace, youth, and subtle motion.
- D. should only be used as structural lines.

______ 10. A person who wishes to look taller and slimmer should avoid selecting the following type of line(s) in his or her clothing:
- A. horizontal lines, especially those placed low on the body
- B. a centered vertical line
- C. an arrow line
- D. diagonal lines

Part B: Match the definitions to the terms listed below. Write the correct term in the blank beside each definition given. A term should not be used more than once. Some terms in the list will not be used.

asymmetrical balance
back fullness silhouette
bell silhouette
curved lines
decorative lines
diagonal lines
horizontal lines
hue
primary neutrals
space
symmetrical balance
texture
tubular silhouette
value
vertical lines

______________ 11. the basic color identity or the specific name of a color

______________ 12. the surface quality of an object

______________ 13. lines that are parallel to the ground

______________ 14. lines present in the fabric design, fabric construction, or added by applying trim, accessories, and stitching

______________ 15. black, white, and gray

______________ 16. lines that go up and down

______________ 17. a design characterized by a slim skirt

______________ 18. a characteristic of a design having exactly the same features on both sides of the design center

______________ 19. a design characterized by a fitted waist and full skirt or pant leg

Part C: Respond to the following item in the space provided. Use complete sentences.

20. The basic guidelines used to combine the elements of design are called principles of design. List the principles of design and briefly describe each principle.

CHAPTER NINE TEST
Sewing, Repairing, and Pressing Techniques

Part A: The following are multiple-choice items. Choose the best answer and write the letter of your response in the blank beside each item.

_____ 1. Sewing by using the fewest steps possible and sewing long sections of seams without stopping frequently are examples of using
A. fast sewing.
B. energy loss prevention.
C. motion economy.
D. motion condensation.

_____ 2. When skipped stitches and breaking thread occur during machine sewing, the first place to check is
A. the tension.
B. the machine threading.
C. the bobbin.
D. the stitch-length regulator.

_____ 3. SPM is a abbreviation for
A. speed of stitching, placement of stitching, and method of production.
B. speed, plies, and method.
C. seams per minute.
D. stitches per minute.

_____ 4. Which of the following descriptions is **not** a characteristic of good machine stitching?
A. The upper and lower threads are locked on the top layer of fabric.
B. The stitch length and tension are appropriate for the fabric texture and weight.
C. The stitches are all the same size.
D. There are no skipped or broken spots in stitching.

_____ 5. A garment shaped so that it follows the lines of the body is called a
A. shaped garment.
B. fitted garment.
C. composite garment.
D. draped garment.

_____ 6. In which of the following situations should a machine darn **not** be used?
A. if the darn will show
B. to repair a hole that can be covered by a button
C. for reinforcement of worn areas in work clothes
D. on straight, three-cornered, or jagged tears

_____ 7. The most efficient way for sewing machine operators to release work is to
A. stop and cut the threads on each seam.
B. stop, raise the needle, and trim the threads.
C. sew work out in a continuous chain.
D. use scissors, shears, or snips.

_____ 8. When a flat piece of fabric is adjusted to fit the curves of a human body, which of the following techniques is used?
A. tucks
B. points
C. inserts
D. darts

_____ 9. Types of pleats are
A. boxed and tucked.
B. box, knife, and inverted.
C. topstitched and inverted.
D. straight, contour, and double-pointed.

_____ 10. FS751A defines and classifies
A. seams, stitches, and stitchings.
B. hand basting.
C. buttonholes made on industrial sewing machines.
D. zipper types.

Part B: Match the definitions to the terms listed below. Write the correct term in the blank beside each definition given. A term should not be used more than once. Some terms in the list will not be used.

backstitching
basting
catchstitch
clean finishing
clipping
darning
flat-felled seam
French tacks
grading
mock French seam
notching
overcast stitch
pad stitching
patching
pivoting
seam
shank
staystitching
tailor's tack
trimming
understitching
welt seam

______________ 11. stitching used to prevent seam lines from stretching out of shape while a garment is being constructed

______________ 12. stitching near a seam line to make facings and seam allowances lie flat

______________ 13. cutting out V-shaped pieces from a seam allowance on an outside curve so the seam will lie flat when the garment is turned right side out

______________ 14. turning a corner while stitching

______________ 15. hand or machine stitching that temporarily holds two or more parts of a garment together

______________ 16. a plain seam that is stitched and pressed toward one side, trimmed, and topstitched

_______________ 17. stitching over the same row of stitching or sewing several stitches in one spot

_______________ 18. cutting a seam allowance on an inside curve so that the seam will lie flat when the garment is turned right side out

_______________ 19. trimming the plies of a seam allowance to different widths to reduce thickness and eliminate bulk

_______________ 20. covering a hole or a tear with matching or contrasting fabric or fitting a piece of matching fabric into a hole

_______________ 21. cutting away a part of the seam allowance to reduce bulk

_______________ 22. a durable seam used for garments that receive much wear and repeated washings such as jeans

_______________ 23. a hand stitch used to transfer pattern markings and construction details onto fabric garment pieces

_______________ 24. a hand stitch that involves placing diagonal stitches over the edge of a seam or fabric to prevent raveling

_______________ 25. a hand stitch used primarily when hemming, attaching facings to garment fabric, and attaching interfacing to fabric

_______________ 26. a method of repairing a hole or tear by following the grain line and by anchoring new yarns in the fabric on all sides of the hole or rip

Part C: Respond to the following item in the space provided. Use complete sentences.

27. List five examples of seam finishes and briefly describe each.

Part D: Respond to each of the following items by placing the term in the blank that most appropriately completes the statement.

28. A __________________________ is made of individual teeth, called metal scoops, that are constructed of aluminum or brass.

29. A __________________________ is open at both ends allowing the zipper to disconnect completely.

30. The metal tab that glides over the teeth or coil of a zipper to open and close it is called the __________________________.

31. A partial opening in a garment in an area such as the neckline, waistline, or sleeve is called a/an __________________________.

32. A continuous strand of polyester or nylon used in place of metal teeth for a more flexible and lightweight zipper is called a/an __________________________.

33. A pocket sewn into the side seam or the side front seam of a garment is called a/an __________________________.

34. A/an __________________________ is stitching at the top and bottom of the pocket's mouth that reinforces the opening.

35. Vertical darts are pressed toward the __________________________ of the garment.

CHAPTER TEN TEST
Measuring for Custom-Made Garments

Part A: The following are multiple-choice items. Choose the best answer and write the letter of your response in the blank beside each item.

_____ 1. A figure with different measurements on one side of the body than the other side is sometimes called a/an
A. symmetrical figure.
B. asymmetrical figure.
C. sloper.
D. form.

_____ 2. The first step in selecting pattern size is to
A. identify what size of ready-made garment the person wears.
B. decide which fabric to purchase.
C. estimate the amount of fabric needed for the sewing project.
D. compare the person's measurements with those on the back of the pattern envelope.

_____ 3. Commercial patterns are grouped according to
A. price.
B. height, proportion, and shape.
C. measurements.
D. height.

_____ 4. Which of the following types of information is **not** found on the front of the pattern envelope?
A. pattern number
B. figure type and size
C. yardage chart
D. price

_____ 5. Of the seven female figure types, which of the following figure types is approximately 5'5" tall, well developed, and considered to be the average figure type?
A. Misses'
B. Miss Petite
C. Half-Size
D. Women's

_____ 6. A measuring device used to measure the inseam and outseam of men's pants is a
A. sewing gauge.
B. sleigh curve.
C. measuring stick.
D. tape measure with a crotch piece.

_____ 7. Major pattern companies follow the same set of body measurements for
A. weight and upper back width.
B. neck circumference and height.
C. chest and shirt sleeve length.
D. bust, waist, hip, and back neck to waist.

_____ 8. The final patterns used in manufacturing ready-made garments are called
A. slopers.
B. production patterns.
C. basic patterns.
D. sleigh curves.

_____ 9. Males who have not developed adult proportions usually fit into the
A. men's figure type.
B. teen-boys' figure type.
C. boys' figure type.
D. all of the above figure types.

Part B: Match the definitions to the terms listed below. Write the correct term in the blank beside each definition given. A term should not be used more than once. Some terms in the list will not be used.

automatic hem gauge
ease
form
hem marker
L square
sewing gauge
sleigh curve
sloper
tape measure with crotch piece
transparent ruler

______________ 10. a pattern of a garment component (such as a bodice or sleeve) without style lines or seam allowances

______________ 11. a short ruler that has an indicator slide that can be set at any point along the ruler

______________ 12. the difference between the body measurement and the garment measurement at a given point

______________ 13. a ruler attached to a weighted base sometimes having a device that releases powdered chalk

______________ 14. a metal or plastic drawing guide with an edge that includes a variety of curves

______________ 15. a standardized duplication of a human torso

CHAPTER ELEVEN TEST
Pattern Alteration Procedures

Part A: Respond to each of the following items by placing the word or term in the blank that most appropriately completes the statement.

1. ________________________ is the amount of fullness needed in a garment for movement and comfort.

2. Seams that follow the natural curves of the body are called ________________________ .

3. The way a garment fits or hangs on the body is known as ________________________.

4. The ________________________ is the line on the torso that creases when the torso is bent.

5. The lengthwise and crosswise direction of yarns in a fabric are referred to as ________________________.

6. The ________________________ visually divides the figure into two halves.

7. Changing a pattern in order to achieve proper fit and appearance is known as ________________________.

8. ________________________ is extra fullness designed into a garment to create a particular style or silhouette and usually causes the garment to measure considerably larger than the body.

9. A garment shows proper ________________________ when it hangs the same distance from the body from right to left and front to back.

Part B: The following are multiple-choice items. Choose the best answer and write the letter of your response in the blank beside each item.

_____ 10. The armseye seam, the neckline seam, side seams, and the waistline seam are examples of
A. lengthwise seams.
B. crosswise seams.
C. circumference seams.
D. construction lines.

_____ 11. Patterns designed for stretchy knit garments require
A. more wearing ease.
B. more design ease.
C. less wearing ease.
D. less design ease.

_____ 12. On a bodice pattern piece, a bust dart should point toward the bust point
A. but end 1" from the bust point.
B. and end exactly on the bust point.
C. but end 2" from the bust point.
D. and end 1" past the bust point.

_____ 13. When several pattern alterations are to be made to a pattern,
A. length alterations should be completed last.
B. width alterations should be completed first.
C. length alterations should be completed first.
D. it does not matter which alterations are done first or last.

_____ 14. When a width alteration is required on a skirt pattern piece,
A. up to 2" may be added or subtracted at the seam line.
B. up to 4" may be added or subtracted at the seam line.
C. the pattern must be slashed and spread.
D. the pattern cannot be altered without new seam lines being drawn.

_____ 15. To raise or lower bust darts,
A. the pattern must be slashed and spread.
B. the pattern is cut from the waist to the shoulder seam.
C. the pattern must be cut and lapped.
D. the location of the new dart point is marked, new stitching lines are drawn, and new dart lines are tapered into the original stitching lines.

_____ 16. To increase the waistline of a gored skirt slightly,
A. make the increase at the side seams.
B. make the increase at the center front and back pieces.
C. distribute the increase over all seams of the skirt.
D. slash the pattern and spread the amount needed.

_____ 17. To decrease the waistline of a fitted dress, one should decrease the same amount on
A. the shoulder seam and the bust darts.
B. the bodice and the skirt.
C. both bust darts.
D. all side seams.

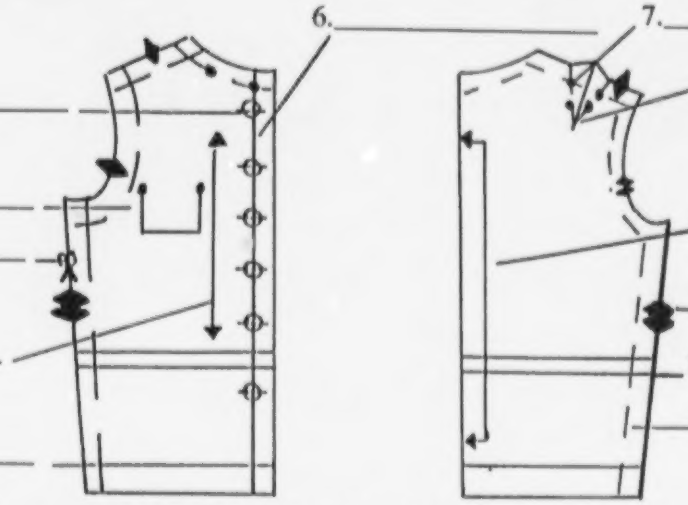
_____ 18. Yarns that are horizontal across the body indicate the
A. lengthwise grain.
B. crosswise grain.
C. set.
D. balance.

_____ 19. Shoulder seams and side seams are examples of
A. silhouette seams.
B. circumference seams.
C. horizontal seams.
D. vertical seams.

_____ 20. A child should be measured
A. wearing a loose-fitting garment.
B. wearing a leotard.
C. wearing undergarments only.
D. wearing an undershirt and lightweight pants.

CHAPTER TWELVE TEST
Unit Construction Techniques

Part A: In the blank beside each pattern symbol on the diagram below, write the correct name of the pattern symbol.



1. ____________________

2. ____________________

3. ____________________

4. ____________________

5. ____________________

6. ____________________

7. ____________________

8. ____________________

9. ____________________

10. ____________________

11. ____________________

12. ____________________

Part B: Respond to each of the following items by placing the term in the blank that most appropriately completes the statement.

13. A/an ____________________ is a set of instructions for using a pattern.

14. A/an ____________________ is a diagram that shows how to position the pattern pieces on the fabric.

15. When fabric is folded twice along the lengthwise grain allowing two pattern pieces to be placed on the fold, the layout is called a/an ____________________.

16. To check the grain of fabric, one should fold the fabric lengthwise, matching the ____________________.

17. ____________________ are images on the pattern pieces that identify specific construction details.

18. After all pattern pieces marked with a place on the fold bracket are pinned, pattern pieces marked with the ____________________ should be pinned.

19. Any ____________________ during cutting out a pattern and fabric can cause distortions or inaccuracies

20. Any direction on fabric other than lengthwise or crosswise grain is known as ________________________.

21. Markings should be transferred to the ________________________ side of fabric.

22. A loose, hand-sewn thread loop used to transfer pattern symbols to fabric is called a/an ________________________.

23. A/an ________________________ is a piece of fabric that finishes a raw garment edge such as an armhole or neckline.

24. A/an ________________________ lining is not attached to the garment at the hem.

25. ________________________ is the direction on fabric at a 45 degree angle to any straight edge when fabric grains are perpendicular.

26. A/an ________________________ is used to join the edges of two plies of fabric that are slightly different in length without forming gathers.

27. A/an ________________________ is a fabric tunnel that holds elastic or a drawstring in place.

28. ________________________ is the process of placing fusible web between the garment and the hem and pressing.

29. A/an ________________________ sleeve extends from the front and back of a garment without armhole seams.

30. A/an ________________________ sleeve is attached to a garment by a continuous diagonal seam that runs down from the front neckline to the underarm and up to the back neckline.

31. A/an ________________________ is made of a deep hem that is folded to the right side of the garment's sleeve and tacked in place at each seam.

32. The ________________________ is the end of the waistband that falls on the top.

33. A/an ________________________ buttonhole is made of fabric strips that are cut and sewn into place before the facing is attached.

34. A/an ________________________ pocket is a piece of fabric that is sewn to the outside of a garment.

35. With a/an __________________________ zipper application, only one side of the placket covers the zipper, and one row of stitching shows on the outside of the garment.

CHAPTER THIRTEEN TEST
Garment Alterations: Fitting

Part A: The following are multiple-choice items. Choose the best answer and write the letter of your response in the blank beside each item.

_____ 1. If the grain line of a garment is not straight, the garment
A. will shrink when washed or dry-cleaned.
B. will usually hang unevenly and pull to one side.
C. cannot be sold without having a care label in it.
D. must be altered.

_____ 2. When a garment is cut on the bias,
A. the garment has more stretch and ease.
B. the garment does not hang evenly.
C. it fits well.
D. the hem is uneven.

_____ 3. Corduroy fabric, leather, velvet fabric, and fabrics with permanent press finishes are examples of
A. fabrics that fit the body well.
B. materials that are easiest to alter.
C. materials that are difficult to alter.
D. fabrics that should not be used to construct garments.

_____ 4. The most difficult areas to alter in most women's garments are the
A. shoulder, neckline, and bust areas.
B. hip line and waistline.
C. hemline.
D. bodice and skirt.

_____ 5. The section of a woman's garment that covers the body from the neck to the waistline is called the
A. torso.
B. form.
C. bodice.
D. bust area.

_____ 6. For women's garments, the easiest alterations to make are usually
A. bodice alterations.
B. skirt alterations.
C. alterations to slacks.
D. neckline alterations.

_____ 7. Compared to alterations on women's garments, alterations on men's garments are usually
A. more expensive to have done.
B. impossible to accomplish.
C. harder to accomplish.
D. easier to accomplish.

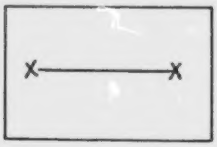
_____ 8. The jacket length required for a male client is determined by
A. the size of the man's shoulders.
B. the man's weight.
C. the man's height.
D. the man's shirt sleeve length.

_____ 9. The most common of all alterations is
A. altering the width.
B. altering the length.
C. altering the waistline.
D. altering the hip line.

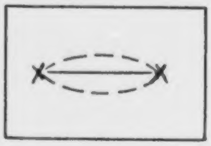
_____ 10. Usually, the best method of replacing pin markings when altering ready-to-wear garments is
A. thread markings.
B. pin fitting.
C. tailor's chalk.
D. clip marking.

CHAPTER FOURTEEN TEST
Garment Alterations: Adjustments

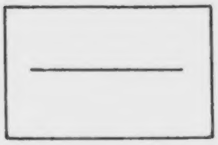
Part A: In the blank beneath each standard alteration symbol below, write the word(s) that the symbol represents.



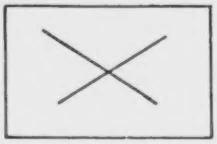
1. ____________________



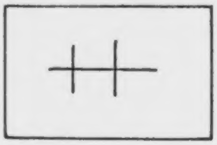
2. ____________________



3. ____________________



4. ____________________



5. ____________________

Part B: Respond to each of the following items by placing the term in the blank that most appropriately completes the statement.

6. When performing an alteration, it is important to make sure that the instructions on the alteration tag correspond to the ____________________ on the garment.

7. If the hip line of a dress without a waistline needs to be increased, the bodice of the dress may be too long and have excess folds of fabric around the client's ____________________.

8. Making an area of a garment smaller with the use of heat, moisture, and steam is called ____________________.

9. To lower the neckline on a woman's garment, it is necessary to remove the old ____________________ and make a new ____________________.

10. When one sews larger seam allowances than were originally sewn in a garment, the seam is ____________________.

11. Removing excess fabric from a garment by inserting straight pins through tucks of fabric is called ____________________.

12. A diamond-shaped piece of identical or similar fabric inserted in a garment to provide more ease of movement and increased strength is called a/an __________________________.

13. If a female client has slightly sloping shoulders that result in shoulder fit problems, it is best to try attaching __________________________ to the garment.

14. When a woman's skirt is too small in the hips, it pulls at the side seams and causes __________________________ to form at the hip line.

15. Taking a jacket up through the __________________________ corrects most shoulder fit problems.

16. When marking the hemline in a client's garment, it is important to use a __________________________ so the client can see the hem.

17. When marking a hemline in a client's garment, the client should wear the undergarments and __________________________ to be worn with the garment.

18. To adjust the hemline in a pleated skirt, more __________________________ is usually required to achieve an accurate hemline than in other types of skirts.

19. Children's garments are usually __________________________ to alter than adults' garments.

20. A person who is trained to view garments on a client, make fitting suggestions, determine what changes are possible, and actually mark the garment is called a/an __________________________.

CHAPTER FIFTEEN TEST
Quality in Apparel and Accessories

Part A: For each of the apparel and textile laws listed below, give a brief explanation of what the law requires in the space provided. Use complete sentences.

1. 1972 Care Labeling Act –

2. Textile Fiber Products Identification Act –

3. Wool Products Labeling Act –

4. Fur Products Labeling Act –

5. Flammable Fabrics Act –

Part B: In the spaces provided, list the six consumer rights and a brief explanation for each. Use complete sentences.

6. The right to ________________________ –

7. The right to ________________________ –

8. The right to ________________________ –

9. The right to ________________________ –

10. The right to ________________________ –

11. The right to ________________________ –

Part C: Match the definitions to the terms listed below. Write the correct term in the blank beside each definition given. A term cannot be used more than once. Some terms in the list will not be used.

better business bureaus
care
consumer offices
durability
federal agencies
first impression
image
industry consumer programs
lifestyle
needs
personality
quality
values
wants

_______________ 12. the opinion a person forms when first meeting someone

_______________ 13. the ability to withstand hard wear or frequent use

_______________ 14. organizations associated with the government of the United States that offer services such as handling individual complaints and providing consumer information

_______________ 15. the characteristics that distinguish an individual, such as feelings, actions, and thoughts

_______________ 16. items desired to make life more enjoyable

_______________ 17. what people see and remember when they look at an individual

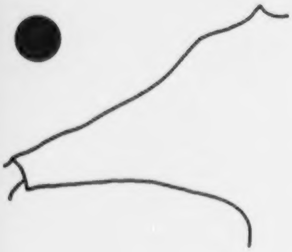
_______________ 18. non-profit organizations sponsored by private, local businesses that provide services such as general information on products and services and background information on local businesses

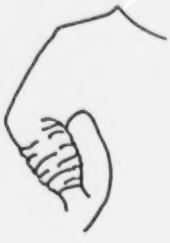
_______________ 19. the ideals, beliefs, principles, and standards that are important to a person

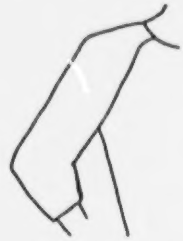
_______________ 20. the activities in which a person is involved and the places she or he goes

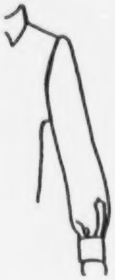
CHAPTER SIXTEEN TEST
Coordinating Apparel and Accessories

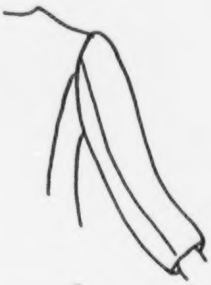
Part A: In the blank beneath each sleeve sketch, write the correct name of the sleeve type.


1


2


3


4


5

__________ __________ __________ __________ __________

Part B: Match the definitions to the terms listed below. Write the correct term in the blank beside each definition given. A term should not be used more than once. Some terms in the list will not be used.

American cut
blazer
blouse
bolero
chemise
chesterfield
collar
coordinate

European cut
layette
neckline
Norfolk
skirt
suit
trench
two-piece sleeper

__________ 6. the combining of apparel and accessories to form a pleasing ensemble when worn together

__________ 7. the style of man's suit that has natural sloping shoulders, a loosefitting jacket, and moderately wide-notched lapels

__________ 8. a loose garment worn on the upper part of the body by a woman

__________ 9. another name for a shift dress that has no waistline seam, fits loosely, and is not shaped inward at the waist

__________ 10. an infant's garment that consists of a pullover top and bottoms that snap together at the waist and sometimes down the crotch and legs

__________ 11. a style of woman's coat that is single-breasted and usually has a fly front and a velvet collar

__________ 12. a women's garment that hangs down from the waist

________________ 13. a complete outfit for a newborn baby often consisting of apparel, accessories, and bedding

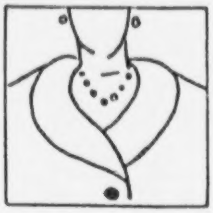
________________ 14. a set of garments intended to be worn together, such as jacket and pants

________________ 15. a piece of fabric attached to the neckline of a garment

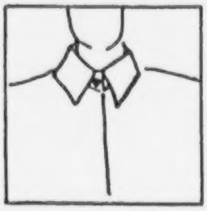
________________ 16. a lightweight, single-breasted sports jacket

________________ 17. a style of man's suit that has padded shoulders, tightly fitting armholes, a jacket narrowed at the waist, and peaked lapels

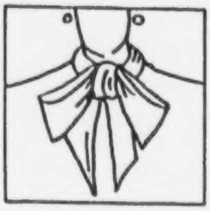
Part C: In the blank beneath each collar sketch, write the name of the collar type.



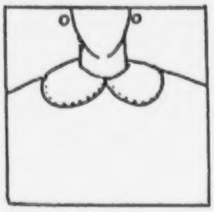
18 ________________



19 ________________



20 ________________



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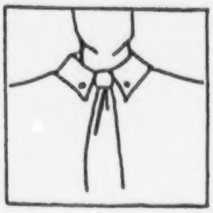
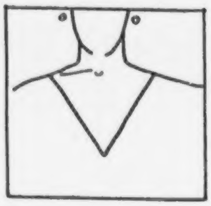
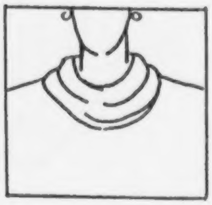


22 ________________

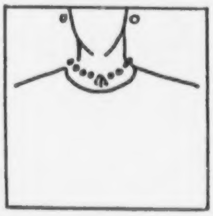
Part D: In the blank beneath each neckline sketch, write the name of the neckline type.



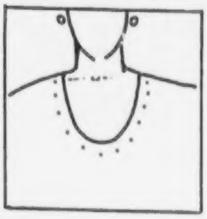
23 ________________



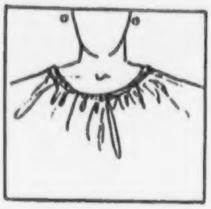
24 ________________



25 ________________

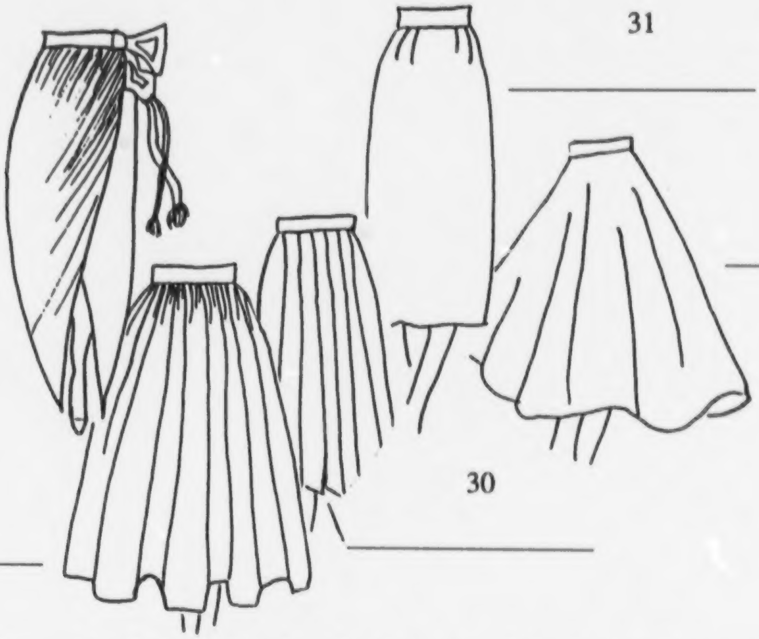


26 ________________



27 ________________

Part E: In the blank beside each skirt sketch, write the name of the skirt style.



28 ____________________

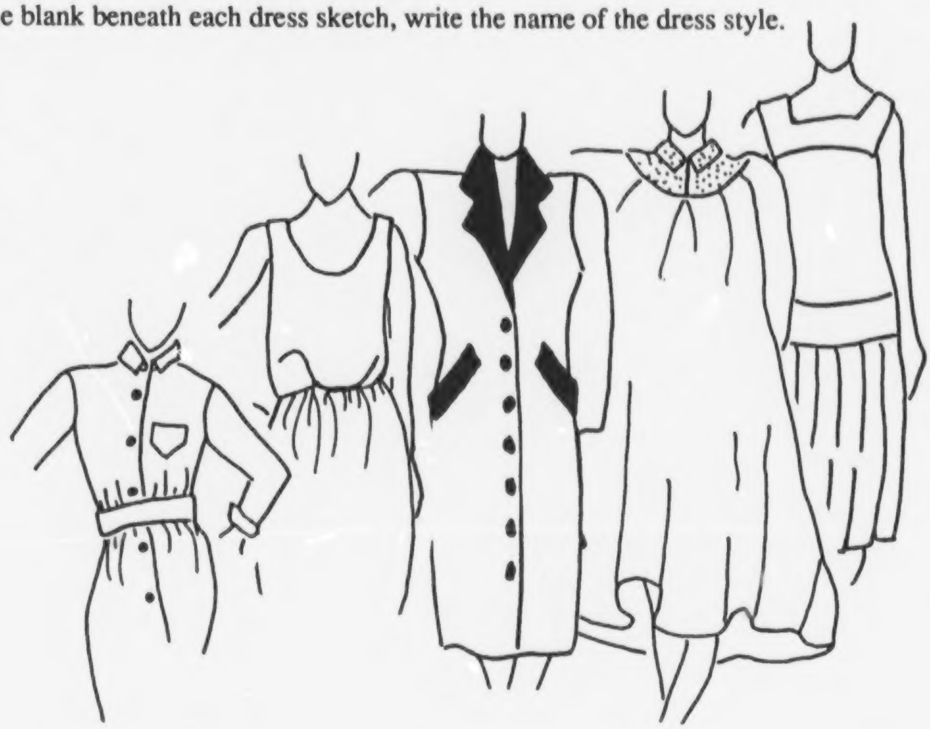
29 ____________________

30 ____________________

31 ____________________

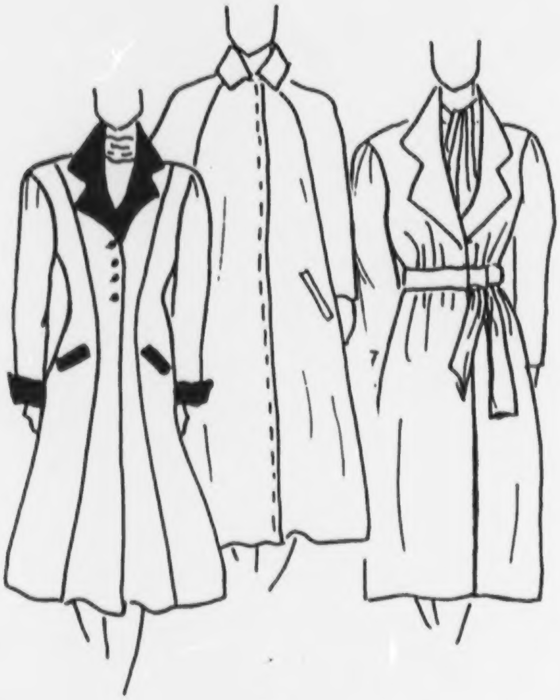
32 ____________________

Part F: In the blank beneath each dress sketch, write the name of the dress style.



33 ________________ 34 ________________ 35 ________________ 36 ________________ 37 ________________

Part G: In the blank beneath each woman's coat sketch, write the name of the coat style.

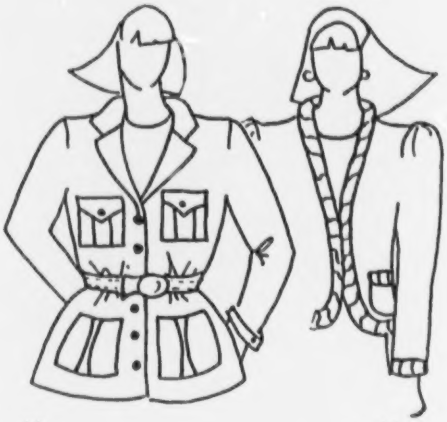


38 ____________________

39 ____________________

40 ____________________

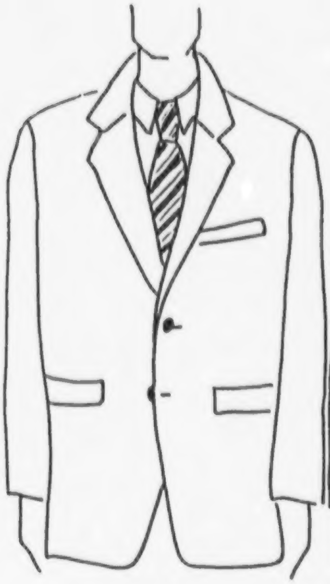
Part H: In the blank beneath each woman's jacket sketch, write the name of the jacket style.



41 ____________________

42 ____________________

Part I: In the blank beneath each man's jacket sketch, write the name of the type of jacket.



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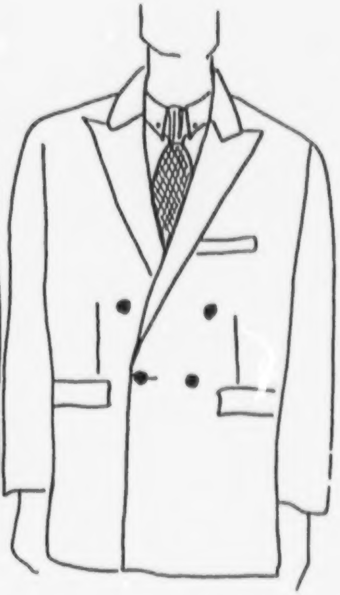

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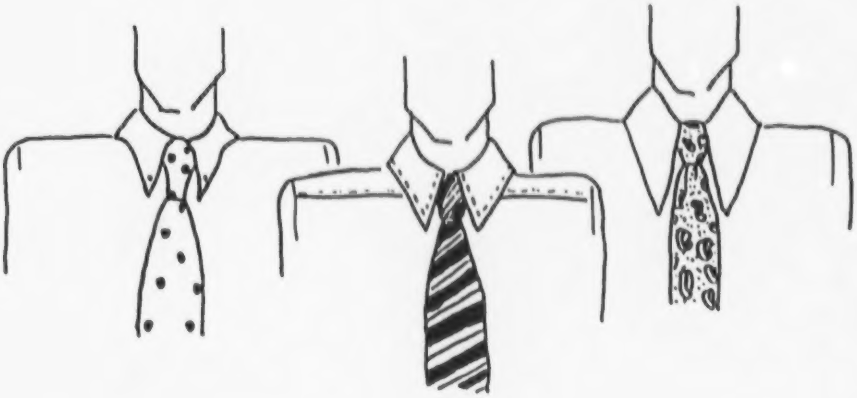
____

Part J: In the blank beneath each man's shirt sketch, write the name of the shirt style.



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46

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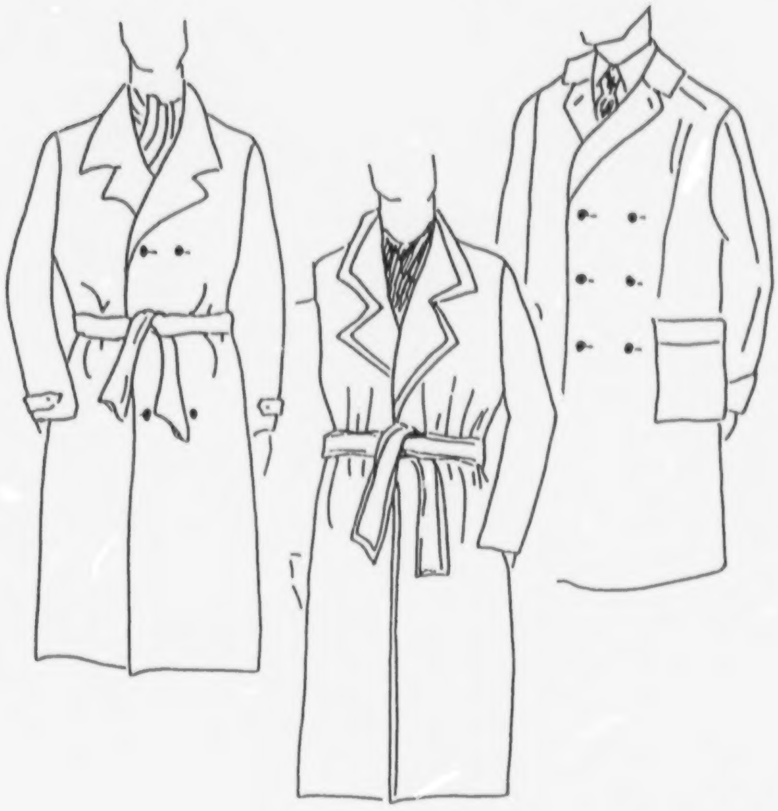
47

____

Part K: In the blank beneath each man's coat style, write the name of the coat style.



48 ____________________

49 ____________________

50 ____________________

CHAPTER SEVENTEEN TEST
Marketing: Promotions and Special Events

Part A: Match the definitions to the terms listed below. Write the correct term in the blank beside each definition given. A term should not be used more than once. Some terms in the list will not be used.

advertising
demographics
environment
fashion advertiser
fashion illustrator
fashion journalist
fashion trend researcher
inflation
manufacturers
market segments
point-of-sale selling
psychographics
publicity
public relations
recession
retailers
self-service
target market
visual merchandising

________________ 1. a nonpersonal, physical presentation of merchandise or ideas at the point of sale

________________ 2. a method of providing verbal or written information through a news or feature story about a product, place, thing, person, or idea

________________ 3. a person who collects information about occurrences in the fashion industry and predicts how consumers will react to changes in current and future fashions

________________ 4. a particular group of individuals who have similar characteristics that make them potential customers for a certain good or service

________________ 5. the conditions in which people live

________________ 6. a person who reports fashion news by writing newspaper and magazine articles

________________ 7. smaller groups of the total consumer market that have specific consumer characteristics

________________ 8. a person employed by a retailer, manufacturer, newspaper, or agency to develop ideas for promotion of fashion goods

________________ 9. an economic situation in which demand exceeds supply

________________ 10. studies that help to place customers and consumers into target groups

________________ 11. wholesalers of finished products

________________ 12. studies that help marketers identify personal traits of customers such as attitude, interests, and personal opinions

________________ 13. a nonpersonal promotion method used to influence sales by sending messages through media to an audience of potential customers

_______________ 14. a company's overall program of creating goodwill

_______________ 15. businesses that sell finished products to customers

Part B: Respond to the following items in the spaces provided. Use complete sentences.

16. List and briefly describe four types of retail fashion shows that may be sponsored by a retailer.

17. What are the four most important aspects of the personal selling process?

18. List and briefly describe two environmental factors that are considered when marketing goods and services.

CHAPTER EIGHTEEN TEST
Visual Merchandising

Part A: Respond to each of the following items by placing the term in the blank that most appropriately completes the statement.

1. ______________________ props are used to physically support or hold merchandise.

2. ______________________ displays are those in which several adjoining windows are used to display a common merchandise theme.

3. ______________________ is a lighting technique that directs light over the entire display area.

4. ______________________ displays are those using a major selling event in all or most of a store's windows.

5. ______________________ displays are designed to project a positive image for a retail store.

6. ______________________ displays are used to show items from one manufacturer.

7. ______________________ is a lighting technique that focuses a narrow beam of light on a specific item.

8. ______________________ refers to various methods used to make a business attractive and efficient in selling merchandise.

9. ______________________ are small, enclosed display boxes that are open on one side only to display merchandise.

10. ______________________ is a basic display arrangement that involves arranging related items in direct lines from a central object or space.

11. ______________________ displays are displays arranged in areas where customers make shopping decisions.

12. In display, ______________________ lines usually create an impression of stiffness, formality, or rigidity.

13. A/an ______________________ is a single item, such as a mannequin, that appears as the dominant feature of a display.

14. A/an __________________________ window permits customers to see into the interior of the store.

15. A/an __________________________ window is a window that has a partial background that hides some of the store's interior.

Part B: Match the descriptions to the types of display fixtures and display items listed below. Write the correct term in the blank beside each description given. A term should not be used more than once. Some terms in the list will not be used.

appendage forms
basic display stand
displayers
easels
garment top
lingerie top
millinery heads
pinwheel rack
platform
quad rack
set pieces
S-rack
tent costumer
waterfall brackets

________________ 16. a variation of the T-stand; the bar attached to each side of the top of the stand is angled downward and has pegs to hold garment hangers

________________ 17. an attachment that is curved downward and displays one sweater, blouse, dress, jacket, or other garment

________________ 18. an elevated stage on which items are displayed

________________ 19. a fixture made of metal, wood, or plastic; has a stable, circular base; and has adjustable extensions so it may be raised to different levels

________________ 20. angular attachments that project outward with hooks that separate and hold items

________________ 21. fixtures designed to display hats

________________ 22. reproductions of arms, hands, or legs used to display items such as gloves, shoes, and hosiery

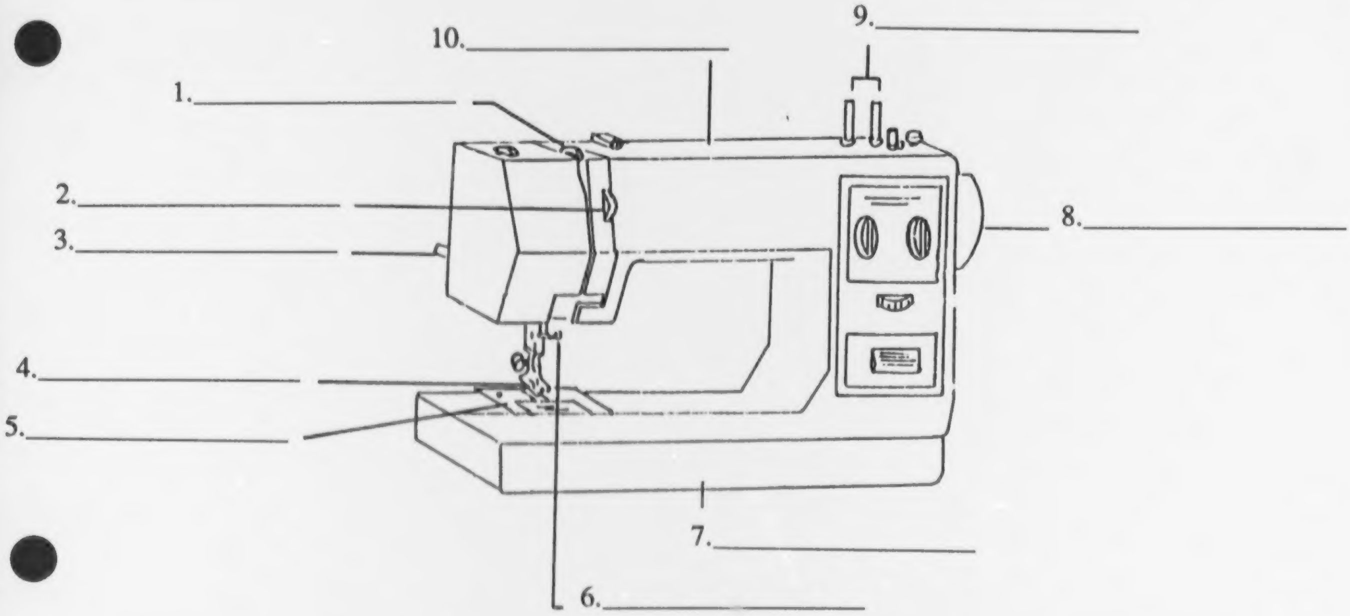
________________ 23. display items such as small statuettes, foliage, or commonly used objects that serve as props in carrying out a display theme

________________ 24. three half-circular units staggered in heights of 78", 66", and 54"; used especially for displaying groups of coordinated garments

________________ 25. three-legged stands that display items perpendicular to the display area

CHAPTER NINETEEN TEST
Use and Care of Sewing and Pressing Equipment

Part A: In the blank beside each identified part of the conventional sewing machine below, write the name of the sewing machine part.



Part B: Match the descriptions to the types of pressing equipment listed below. Write the correct term in the blank beside each description given. A term should not be used more than once. Some terms in the list will not be used.

clapper
electric puff iron
foot press
needle board
point presser
portable steam presser
pressing form
press mitt
seam stick
sleeve board
sleeve roll
steam iron
tailor's ham
temperature regulated iron

________________ 11. a narrow, wooden form with angled edges and a tapered point used to press and form sharp corners, to press open seams of points, and to press open seams without pressing nearby fabric

________________ 12. a small piece of pressing equipment that is operated by hand consisting of an oval-shaped metal ironing head attached to a metal stand and used to press or shape items such as contoured seams, puffed sleeves, and ruffles

________________ 13. a soft, glove-like cushion that can be worn on the hand or placed on a sleeve board and used to shape hard-to-reach areas and to press small details, rounded seams, and sleeve caps

______________ 14. a firm, rounded cushion covered with tightly woven fabric with wool and cotton pressing surfaces used to press areas requiring shape such as curved darts

______________ 15. a small-scale, wooden ironing board with rounded ends and a padded surface covered with silicone-treated canvas or cotton fabric and used to press items such as short seams, hard-to-reach areas, and areas that will not fit on a regular ironing board; prevents creasing of sleeves

______________ 16. a flat board covered with short, blunt wires embedded upright that is used to prevent pile and napped fabrics from being crushed or flattened during pressing

______________ 17. a firm, cylinder shaped cushion that is covered with tightly woven fabric and is used when pressing cuffs, legs of slacks and pants, and sleeves to avoid misshaping garments and prevent impressions of seam ridges from forming on the right side of fabric

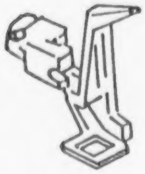
______________ 18. a collapsible fabric structure that inflates to simulate the shape of a garment and is used when other pressing methods would stretch or distort garments

______________ 19. a two-piece padded form that applies heat, pressure, and moisture when the upper and lower pressing surfaces are activated by a foot pedal or handle

______________ 20. a piece of equipment consisting of a lightweight, nonmetallic plate that tapers to a point at one end, a handle, and a chamber that holds water; used to steam garments on forms and on hangers

______________ 21. a thick, wooden block that is rounded at one end and is used to flatten darts, pleats, and seams during pressing and flatten edges and seams on heavy fabrics

Part C: In the blank beneath each presser foot illustrated below, place the name of the type of presser foot.



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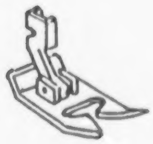

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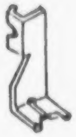

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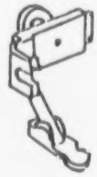

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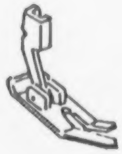

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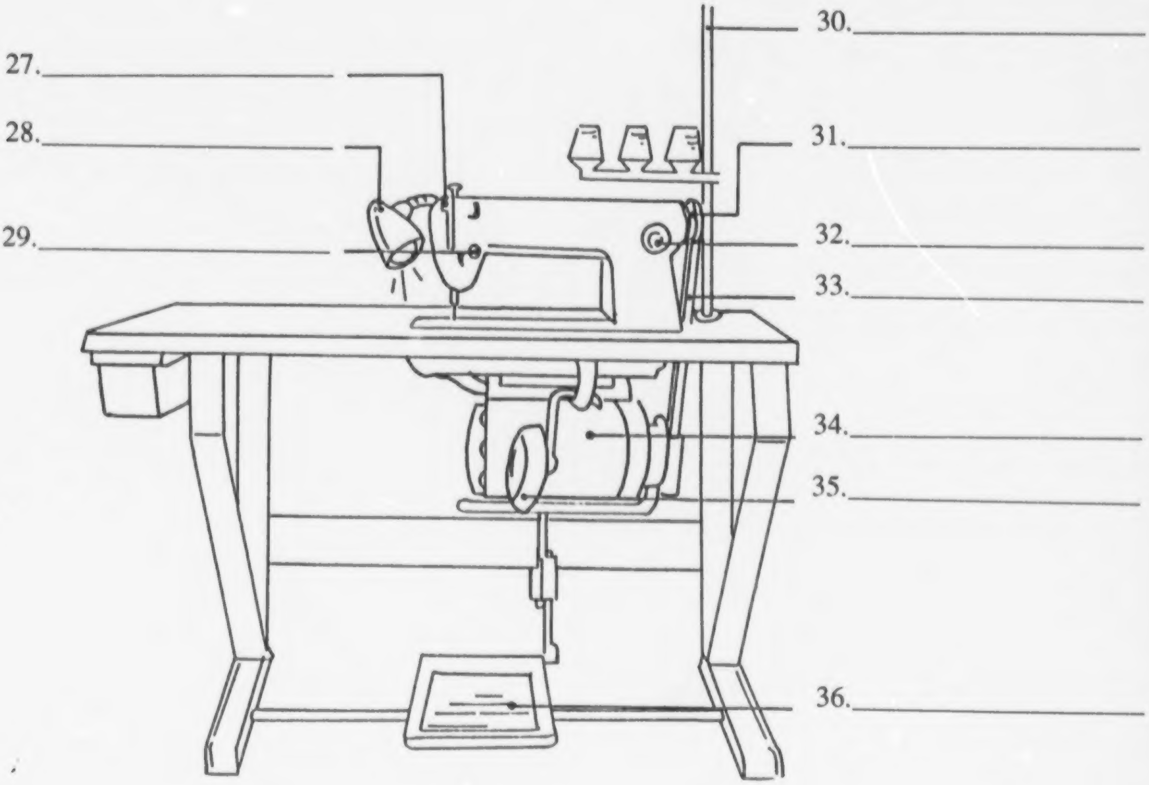
Part D: In the blank beside each identified part of the industrial sewing machine below, write the name of the sewing machine part.


27.
28.
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33.
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35.
36.

Part E: Match the sewing problems in the left column with the possible causes and solutions in the right column. Place the letter of the cause or solution in the blank to the left of the related sewing problem.

_________ 37. poor feeding of fabric

_________ 38. soiling of fabric

_________ 39. skipped stitches

_________ 40. broken needle thread

_________ 41. looping or loose stitching

_________ 42. noisy machine

_________ 43. bending or breaking of needles

a. machine needs oiling; blunt needle; loose parts or loose belt; loose bobbin case

b. incorrect tension setting; wrong thread or needle size for fabric; rough surfaces over which the thread passes; interference with free passage of the top thread around the bobbin case; improperly threaded bobbin

c. portions of fabric too thick or heavy for needle size; blunt point on needle; loose needle clamp screw; hole in throat plate too small; top thread too heavy for needle; stitching over basting pins

d. improper setting of the presser foot or feed; incorrect feed timing

e. improper threading; needle incorrectly positioned in needle bar; damaged needle; wrong size needle; stitching without having take-up lever at highest position; dirt or lint packed under throat plate; machine out of adjustment

f. interference with the top thread loop formation caused by lack of control of fabric; wrong needle size; incorrect type of presser foot, feed, or throat plate; poor quality thread; damaged, dirty, or oily needle

g. improper cleaning of machine; use of wrong lubricant; oil flow too great

Part F: Match the descriptions to the sewing equipment and tools listed below. Write the correct term in the blank beside each description given. A term should not be used more than once. Some terms in the list will not be used.

awl
ballpoint needle
bobbin
bodkin
butterfly gauge
flywheel
folder
looper
needle clamp screw
pinking shears
plumb line
pointer and creaser
presser feet
seam ripper
shears
shuttle hook
spreading machine
tailor's chalk
tailor's tacks
width gauge

______________ 44. a tool used to finish seams by trimming while automatically making a zigzag cut or scalloped cut

______________ 45. a tool used to cut fabrics having two cutting blades that make the tool at least 6" long and two handles shaped for comfortable use

______________ 46. thread markings used to mark fabrics when carbon paper and marking pencils or pens cannot be used

______________ 47. a flat tool with one end pointed and the other end rounded; used to push out corners, to flatten seam lines, or to assist in finger pressing

______________ 48. a clay based material that is used to mark fabrics

______________ 49. a sharp, metal tool with a wooden or plastic handle that is used to make holes for eyelets or keyhole buttonholes; may be used to punch holes in leather or plastic

______________ 50. a device on which a roll of fabric is suspended on a revolving rod above a carriage on wheels; used to move up and down the length of the table as it unrolls fabric

______________ 51. a heavy cord with a metal weight tied to one end that is used to check center front, center back, and side seams

______________ 52. a tool used to remove stitching from fabric

______________ 53. a blunt, needle-like tool designed for pulling material or elastic through a casing

______________ 54. a sewing machine attachment that helps in stitching a specified distance from the edge of the fabric

______________ 55. a small metal or plastic cylinder that holds thread and is placed in the lower part of the sewing machine under the feed

CHAPTER TWENTY TEST
Receiving, Marking, and Identifying Laundry and Dry Cleaning

Part A: The following are multiple-choice items. Choose the best answer and write the letter of your response in the blank beside each item.

_____ 1. When soiled laundry is received at a commercial laundry,
A. employees should tag the laundry immediately.
B. employees should explain to the customer that soil cannot be removed.
C. the laundry should be dry-cleaned.
D. sizing should be added to the items before they are laundered.

_____ 2. Indelible ink is used by some commercial laundries to
A. complete the laundry ticket that includes special instructions for pretreating and sizing laundry.
B. identify garments that must be pressed.
C. identify stains on garments.
D. tag laundry so the item can be returned to the owner.

_____ 3. A finish is
A. a treatment or process used to improve different fabric characteristics.
B. a pretreating process.
C. a method of ornamentation.
D. a process used at self-service dry cleaners.

_____ 4. At a laundry drop-off center,
A. dry cleaning is performed.
B. laundry is cleaned.
C. laundry is dropped off and picked up.
D. laundry and dry cleaning are dropped off, cleaned or laundered, and picked up by the customer.

_____ 5. At a laundry drop-off center,
A. laundry is usually not sorted.
B. laundry is always sorted and cleaned.
C. laundry is always placed in bins and pretreated before it is laundered.
D. laundry is not tagged.

_____ 6. A self-service dry cleaning machine cleans through use of
A. a device that sprays soiled clothes to pretreat them.
B. water and detergent.
C. a flammable dry cleaning solvent.
D. a nonflammable dry cleaning solvent.

_____ 7. Commercial laundries charge according to
A. the weight of the basket of laundry.
B. the type of item(s) to be laundered.
C. the weight of laundry or the type(s) of item(s) to be laundered.
D. the types of fabrics being laundered.

____ 8. There are
A. few types of dry cleaning services, so dry cleaning employees rarely record any information from customers when dry cleaning is received.
B. various types of dry cleaning services.
C. few differences in dry cleaning services, so dry cleaning employees are not required to remember much information about specific cleaning procedures.
D. few occasions when dry cleaning employees must tag clothing items.

____ 9. Ornamentation is
A. a decorative item on a garment such as a pin.
B. a fastener such as a zipper.
C. a method of hemming a garment.
D. altering the hip line.

____ 10. A central location where dry cleaning processes are performed is called a
A. pick-up center.
B. dry cleaning plant.
C. self-service dry cleaners.
D. commercial laundry facility.

CHAPTER TWENTY-ONE TEST
Laundry and Dry Cleaning Procedures

Part A: The following are multiple-choice items. Choose the best answer and write the letter of your response in the blank beside each item.

_____ 1. Eutrophication refers to
A. bleaching.
B. the softening of laundry to make pressing easier and prevent static electricity.
C. the process of whitening, removing stains, and deodorizing.
D. increased levels of nutrients in a body of water.

_____ 2. The first step in cleaning is
A. sequestering.
B. dispersing.
C. emulsifying.
D. wetting.

_____ 3. Pouring water or another stain removal liquid over a stain in an effort to release the stain from the fabric is called
A. tamping.
B. flushing.
C. pouring.
D. stain removal.

_____ 4. A chemical reaction that overcomes the effect of the minerals in water is called
A. tamping.
B. sequestering.
C. dispersing.
D. flushing.

_____ 5. The process of breaking up solid soil and keeping it finely divided and suspended until it can be rinsed away is called
A. dispersing.
B. sequestering.
C. emulsifying.
D. breaking.

_____ 6. The pH level refers to
A. a type of graduate degree in commercial laundering and dry cleaning.
B. the acidity or alkalinity of a solution.
C. the degree to which a detergent improves the wetting ability of water.
D. the amount of suds control in a laundry product.

_____ 7. The washing action of the washing machine supplies which type of energy?
A. mechanical energy
B. chemical energy
C. thermal energy
D. nuclear energy

____ 8. Front loader washing machines have __________ on the inside of the inner tub.
A. extraction devices
B. baffles
C. emulsifiers
D. starch dispensers

____ 9. The amount of laundry detergent used depends on
A. types of fabrics washed.
B. water softness.
C. fabric construction.
D. types and amount of soil.

____ 10. Warm or hot water supplies which type of energy?
A. mechanical energy
B. chemical energy
C. thermal energy
D. nuclear energy

Part B: Match the definitions to the terms listed below. Write the correct term in the blank beside each definition given. A term should not be used more than once. Some terms in the list will not be used.

bluing
builders
dry side chemical
emulsifiers
fabric softener
fluorescent whitening agents (FWAs)
oxygen-based bleach
presoak product
soap curd
solvent
starch
suds control agent
surfactant
tamping

______________ 11. a substance used to give body to fabrics made of natural fibers, increase resistance to soiling, and make pressing easier

______________ 12. an ingredient that improves the wetting ability of water, loosens and removes soils, and dissolves or suspends soils in the water so they are not redeposited on fabrics

______________ 13. an ingredient that increases the efficiency of cleaning agents by tying up or inactivating minerals in hard water

______________ 14. a type of chemical cleaning agent that mixes with staining materials, dissolves them, and forms a removable liquid or powder that is washed away

______________ 15. chemicals that break fats, oils, and greasy soils into tiny particles so they can be easily removed from the surface of fabric and kept suspended in the wash solution until rinsed away

______________ 16. a stain removal chemical that does not contain water

______________ 17. the process of using a soft, densely bristled brush to brush a stain out of fabric

_______________ 18. a liquid or powder added to laundry solutions to prevent white fabrics from yellowing

_______________ 19. complex organic molecules that adhere to fabrics as a dye would

_______________ 20. a sticky yellow or white crust that deposits on fabrics and washing machines

CHAPTER TWENTY-TWO TEST
Safety and Sanitation for Laundering, Pressing, and Dry Cleaning

Part A: Respond to each of the following items by placing the term in the blank that most appropriately completes the statement.

1. A/an __________________________ is a safety feature that prevents the lid of a washer from being opened while the tub is in motion.

2. The __________________________ is the part of the iron that acts as a rest and holds the iron in a well-balanced, upright position.

3. The process of making something clean or sterile is called __________________________.

4. __________________________ and warm water are used to sanitize commercial washers.

5. __________________________ are special parts included on a piece of equipment to protect the operator from harm.

6. To prevent contamination of air in a dry cleaning business, air should constantly be __________________________.

7. __________________________ solvent is solvent that is allowed to collect in a pool.

8. A/an __________________________ is a safety feature that keeps the dryer from heating or tumbling when the door is open.

9. When washing apparel and textile products, the wash water should be at least __________________________ degrees Fahrenheit in order to sanitize properly.

10. It is important to store dry cleaning solvents in safe locations because they can break down and produce __________________________.

Test Answers

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CHAPTER 1

Part A

1. A
2. C
3. B
4. A
5. B
6. C
7. D
8. B
9. D
10. A

Part B

11. sales slip
12. layaway sale
13. sales commission
14. imports
15. statement
16. charge sale
17. inventory
18. computerized information systems

Part C

19. Advantages of using CAD and CAM include the following:
    - A business can save money on the amount of fabric used because of the efficiency and accuracy of the CAD system.
    - A CAM system requires fewer people and allows employees with less experience and skill to perform tasks that previously required a high level of skill.
    - The CAD and CAM systems are fast.
    - Businesses may experience a substantial savings in production costs as a result of using CAD and CAM systems.

20. Retail began in the United States with general mercantile stores which provided many different types of merchandise to customers. The industrial revolution allowed more products to be produced which encouraged increased selling to customers. The industrial revolution also employed workers in jobs that allowed them to make more money. As a result, a middle class developed in the United States. Department stores opened in cities where large numbers of people moved to gain employment. A new philosophy of serving the customer developed. Apparel was a major merchandise category sold in these department stores. Other types of stores developed such as specialty stores, chain stores, and discount stores.

CHAPTER 2

Part A

1. B
2. A
3. A
4. C
5. D
6. C
7. B
8. B
9. D
10. C

Part B

11. staple apparel
12. franchise
13. converter
14. greige goods
15. apprentice
16. private label merchandise
17. entrepreneur
18. fashion apparel

Continued on next page

Part C

19. General qualities needed for employment include the following:
    - appearance – It is important for employees who meet the public to make a good impression on customers. Having a positive appearance involves attention to areas such as choice of clothing, fashion, fit of clothing, hair, good grooming, makeup, dental hygiene, posture, and smiling.
    - vocal and communication skills – It is important to learn to pronounce words correctly, use correct grammar, and become familiar with terms used in the particular job setting. Speaking the right volume and avoiding loud talking is also important in a job situation.
    - cooperation – Cooperation involves willingness to listen to other people's views and opinions and to work toward common goals. Becoming familiar with and following rules and policies, completing assigned tasks with a positive attitude, and cooperating with other employees are important also.
    - positive work habits – Developing positive work habits involves handling and using equipment carefully, being prompt to complete assigned tasks, staying busy while at work, accepting new or more efficient work techniques, showing enthusiasm for assigned tasks, avoiding boredom and being easily distracted, and becoming aware of annoying personal habits.
    - accuracy – Being accurate means following procedures correctly without supervisors having to repeat instructions and paying attention to details.
    - courtesy – Courtesy involves being polite and thoughtful to customers, other employees, and supervisors.
    - initiative – Initiative involves willingness to observe jobs that need to be done and doing them without being told.
    - dependability – Dependability means showing consistency in following through with tasks and responsibilities.
    - honesty – Honesty involves maintaining high ethical standards, telling the truth, and handling the employer's possessions and money with care.
    - promptness – Promptness means being on time and completing assigned tasks on time.
    - self-control – Self-control involves remaining calm, avoiding unpleasant confrontations, maintaining a pleasant disposition, and pausing to think before speaking or taking action.
    - positive attitude – A positive work attitude involves thinking about work in a favorable manner. One expresses a positive attitude by showing enthusiasm and willingness to learn. Loyalty to the employer is another aspect of having a positive attitude.

20. The four degress available are as follows:
    - associate degree – An associate degree requires completion of two years of college.
    - bachelor's degree – A bachelor's degree requires completion of four years of college.
    - master's degree – A master's degree is a type of graduate degree and requires study after graduation from college.
    - doctor's degree – A doctor's degree is a type of graduate degree and requires study after graduation from college.

CHAPTER 3

Part A

1. C
2. A
3. D
4. C
5. B
6. A
7. C
8. D
9. D
10. A

Part B

11. impulse buyer
12. attitude
13. customer
14. approach
15. empathy
16. comparison shopper
17. follower
18. consumer

Part C

19. Verbal communication includes word messages presented to others in person, through writing, and over the telephone. Nonverbal communication includes facial expressions, posture, movement, hand and arm gestures, attitudes, sighs, grunts, groans, and overall body language.

    Seven basic rules of conversation used by successful communicators are as follows:
    - Avoid talking too fast.
    - Do not be afraid of silence.
    - Pronounce words clearly.
    - Learn to listen to others.
    - Avoid total disagreement with customers when they express their opinions.
    - Be tolerant of the other person's point of view.
    - Avoid monopolizing a conversation by telling every detail of a story.

20. The five character traits important in maintaining successful customer relations are as follows:
    - Friendliness involves displaying an attitude that is pleasant and warm.
    - Cheerfulness involves being the kind of person others like to be around.
    - A good sense of humor enables a person to see the less serious side of issues and make the best of difficult situations.
    - Courtesy involves the consistent use of good manners. A courteous person shows respect and consideration for others while showing a willingness to cooperate.
    - Tact is the ability to say and do the right thing at the right time.

CHAPTER 4

Part A

1. C
2. A
3. B
4. D
5. B
6. B
7. B
8. D
9. C
10. B
11. C
12. C
13. D

Part B

14. carpal tunnel syndrome
15. ergonomics
16. tourniquet
17. pressure points
18. fatigue
19. negligence
20. shock
21. cardiopulmonary resuscitation
22. immobilize
23. certificates of occupancy
24. syrup of ipecac

Part C

25. Possible penalties include fines up to $1,000 for failure to comply, fines up to $10,000 for each intentional or repeated violation, and imprisonment for up to six months for serious violations.

CHAPTER 5

Part A

1. D
2. B
3. A
4. C
5. A
6. A
7. C
8. A
9. B
10. D

Part B

11. goal
12. incident file
13. orientation
14. ethics
15. policy
16. compensation
17. grievance
18. procedure
19. incentive
20. straight commission

CHAPTER 6

Part A

1. C
2. B
3. A
4. D
5. A
6. C
7. D
8. B
9. C
10. D
11. A
12. A
13. B
14. B
15. C
16. B
17. B

Part B

18. yarn
19. hackling
20. selvage
21. staple
22. fabric
23. polymers
24. textiles
25. tow
26. filament fiber
27. cloth
28. carding
29. trademark

Continued on next page

30. The wool and worsted spinning systems involve the following stages:
    - Fleece is pulled apart and fibers are sorted.
    - Scouring involves washing in warm, soapy water several times, followed by thorough rinsing and drying.
    - Carding involves further removal of matter such as twigs and burrs. Carding also straightens fibers and arranges them in a parallel position.
    - Combing, a straightening process, is done if fibers are made into worsted yarns.
    - Spinning is the last step in converting fibers to yarn.

CHAPTER 7

Part A

1. D
2. B
3. A
4. A
5. A
6. C
7. C
8. C
9. B
10. A
11. B
12. D

Part B

13. repeat
14. gigging
15. pile fabrics
16. lining
17. fabrication
18. sueded fabrics
19. yardage

Part C

20. The custom sewer should use a fabric width conversion chart to estimate the amount of fabric needed. To use the chart, find the yardage estimate on the pattern enevelpe for the fabric width nearest the width of the fabric selected for the sewing project. Use that estimate as the width to locate at the top of the chart. Look down the column to find the yardage requirement given on the pattern envelope. Look horizontally across the same line to the width of fabric selected. This amount should provide enough fabric for the project.

CHAPTER 8

Part A

1. C
2. B
3. D
4. B
5. B
6. D
7. B
8. C
9. B
10. A

Part B

11. hue
12. texture
13. horizontal lines
14. decorative lines
15. primary neutrals
16. vertical lines
17. tubular silhouette
18. symmetrical balance
19. bell silhouette

Continued on next page

Part C

20. The principles of design are as follows:
    - balance – Balance produces a sense of equality between opposite elements and of restfulness. The elements in a balanced design appear to be equally distributed on both sides of a central focal point.
    - proportion – Proportion refers to the relationsip of parts to each other and to the whole based on the way space is divided.
    - rhythm – Rhythm refers to the illusion of motion as the eye moves easily from one part of the design to another. Rhythm provides a sense of order and a quality of gracefulness.
    - emphasis – Emphasis is created when attention is drawn to a certain part of a design. The center of interest dominates the design.
    - harmony/unity – Harmony or unity, the final goal of a design, is created when all parts of the garment fit together to create a pleasing, whole design.

CHAPTER 9

Part A

1. C
2. B
3. D
4. A
5. B
6. A
7. C
8. D
9. B
10. A

Part B

11. staystitching
12. understitching
13. notching
14. pivoting
15. basting
16. welt seam
17. backstitching
18. clipping
19. grading
20. patching
21. trimming
22. flat-felled seam
23. tailor's tack
24. overcast stitch
25. catchstitch
26. darning

Part C

27. Five examples of seam finishes are as follows:
    - zigzag seam finish – A zigzag seam finish is a series of alternately angled stitches applied to the raw edges of a seam allowance.
    - hand-overcast seam finish – A hand-overcast seam finish involves using a single thread to make slanted stitches at the edge of each seam allowance.
    - pinked seam finish – A pinked seam finish is made by trimming the seam allowances with pinking shears before pressing the seam.
    - pinked and stitched seam finish – A pinked and stitched seam finish involves placing a line of short machine stitches 1/4" from the seam allowance edge and trimming the edge of the seam allowance with pinking shears.
    - clean finished seam – A clean finished seam is made by turning the edge of a seam allowance under 1/8", pressing, and machine stitching.

Continued on next page

Part D

28. chain-constructed zipper
29. separating zipper
30. tab pull or slider
31. placket
32. coil
33. seam pocket
34. bar tack
35. center

CHAPTER 10

Part A

1. B
2. D
3. B
4. C
5. A
6. D
7. D
8. B
9. B

Part B

10. sloper
11. sewing gauge
12. ease
13. hem marker
14. sleigh curve
15. form

CHAPTER 11

Part A

1. wearing ease
2. circumference seams
3. set
4. waistline seam
5. grain
6. center front seam or center back seam
7. pattern alteration
8. design ease
9. balance

Part B

10 D
11. C
12. A
13. C
14. A
15. D
16. A
17. B
18. B
19. A
20. C

CHAPTER 12

Part A

1. buttonhole symbol
2. placement line
3. cutting line
4. grain line marking
5. hemline
6. center front marking
7. dot
8. dart symbol
9. place on fold bracket
10. notches
11. adjustment line
12. seam line

Part B

13. pattern guide sheet
14. cutting layout
15. double fold
16. selvages
17. pattern symbols
18. grain line marking
19. lifting
20. bias
21. wrong
22. tailor's tack
23. facing
24. free-hanging
25. true bias
26. eased seam
27. casing
28. fusing
29. kimono
30. raglan
31. fold-up cuff
32. overlap
33. bound
34. patch
35. lapped

CHAPTER 13

Part A

1. B
2. A
3. C
4. A
5. C
6. B
7. D
8. C
9. B
10. A

CHAPTER 14

Part A

1. release space
2. take in space between
3. shorten
4. alter only one side
5. lengthen

Part B

6. markings
7. waistline
8. shrinking out
9. facing; facing
10. taken in
11. pinning out
12. gusset
13. shoulder pads
14. gathers
15. center back seam
16. mirror
17. shoes
18. marking
19. easier
20. fitter

CHAPTER 15

Part A

1. The 1972 Care Labeling Act requires all finished garments and fabric sold for making apparel to have attached labels describing procedures for regular garment maintenance. Labels must be durable and remain readable throughout the normal life of the garment.
2. The Textile Fiber Products Identification Act requires that each textile product carry a label listing the generic names of the fibers from which it is made. The listing of fibers must be in the order of percentage by weight of fibers present in the product.
3. The Wool Products Labeling Act regulates the labeling of sheep's wool and other animal hair fibers. The act requires that all wool products be labeled and the fibers be identified as either new or recycled wool. The percentage of wool used in the face and the percentage of wool used in the backing of pile fabrics must be printed on the label.
4. The Fur Products Labeling Act requires the label of a fur product to list the name of the animal that produced the fur. Information must also be provided if the fur has been bleached, dyed, or artificially colored. The label must also state the type of fur used.
5. The Flammable Fabrics Act prohibits the sale of fabrics that burn faster, easier, and more intensely than other fabrics.

Part B

6. The right to safety ensures protection from goods and services that are dangerous.
7. The right to be informed provides protection from misleading and false information such as on labels and in advertisements.
8. The right to choose ensures the availability of a variety of goods and services from which to choose.

Continued on next page

9. The right to be heard ensures the right to speak out and be heard and assures that interests can be expressed in legislative and judicial proceedings.
10. The right to redress provides assurance that problems will be corrected.
11. The right to consumer education ensures availability of consumer oriented educational resources such as reading material, classes, and seminars.

Part C

12. first impression
13. durability
14. federal agencies
15. personality
16. wants
17. image
18. better business bureaus
19. values
20. lifestyle

CHAPTER 16

Part A

1. batwing
2. kimono or basic kimono
3. raglan or basic raglan
4. shirt
5. two-piece tailored

Part B

6. coordinate
7. American cut
8. blouse
9. chemise
10. two-piece sleeper
11. chesterfield
12. skirt
13. layette
14. suit
15. collar
16. blazer
17. European cut

Part C

18. shawl
19. shirt
20. bow tie
21. peter pan
22. button-down

Part D

23. V
24. cowl
25. jewel
26. scoop
27. elasticized

Part E

28. wrap
29. gathered
30. pleated
31. straight
32. flared

Part F

33. shirtwaist
34. blouson
35. coat dress
36. tent
37. sheath

Part G

38. princess
39. Balmacaan
40. wrap

Part H

41. safari
42. Chanel

Part I

43. single-breasted
44. double-breasted

Part J

45. button-down
46. standard
47. long-point

Part K

48. trench
49. wrap
50. ulster

CHAPTER 17

Part A

1. visual merchandising
2. publicity
3. fashion trend researcher
4. target market
5. environment
6. fashion journalist
7. market segments
8. fashion advertiser
9. inflation
10. demographics
11. manufacturers
12. psychographics
13. advertising
14. public relations
15. retailers

Part B

16. Four types of retail fashion shows are as follows:
    - in-store show – An in-store show is used to educate store employees regarding new fashion merchandise the store will promote. These shows provide information, stimulate enthusiasm, and suggest ways to sell the merchandise.
    - customer show – A customer show is presented to customers and features themes such as seasonal merchandise, designer fashions, or private label apparel.
    - trunk showings – Trunk showings are informal, are presented on the selling floor, and may be presented prior to the selling season.
    - charity show – A charity show is usually co-sponsored by a retailer and a local institution (such as a school or hospital) or fund-raising charity. These shows sell merchandise, promote goodwill, and build a positive image for the retailer.

17. The four most important aspects of the personal selling process are as follows:
    - Get the customer's attention.
    - Create an interest and desire for the product or service.
    - Stimulate the customer to action (buying).
    - Maintain customer satisfaction to avoid returns and ensure future business.

18. The following environmental factors are considered when marketing goods and services:
    - market segmentation – To market products and services, fashion businesses try to identify and select target markets. By separating the total consumer market into smaller groups, market segmentation is accomplished. The smaller groups are called market segments.
    - economic factors – There are different indicators of economic development such as consumer income which is measured in terms of personal income, disposable income, and discretionary income. Inflation and recession may also occur and influence consumer spending.

Continued on next page

- population – Population figures for a society are indicators that relate to fashion demand. With increasing population, projections may be made regarding fashion demand. The age mix of a population also affects fashion demand.
- sociological factors – Sociological factors include factors such as consumer attitudes, leisure time available to consumers, increased interest in good health, the status of women, and growth of different ethnic groups in society. As these factors change, consumers' fashion interests change.

CHAPTER 18

Part A

1. functional
2. series
3. floodlighting
4. single-promotion or special event
5. institutional
6. line-of-goods
7. pinpointing
8. visual merchandising
9. shadow boxes
10. radiation
11. point-of-purchase
12. straight
13. focal point or center of interest
14. open
15. semi-closed

Part B

16. tent costumer
17. garment top
18 platform
19. basic display stand
20. waterfall brackets
21. millinery heads
22. appendage forms
23. set-pieces
24. pinwheel rack
25. easels

CHAPTER 19

Part A

1. take-up lever
2. tension dial
3. presser foot lever
4. presser foot
5. throat plate
6. needle clamp screw
7. bed
8. handwheel
9. spool pins
10. head

Continued on next page

Part B

11. point presser
12. electric puff iron
13. press mitt
14. tailor's ham
15. sleeve board
16. needle board
17. sleeve roll
18. pressing form
19. foot press
20. portable steam presser
21. clapper

Part C

22. embroidery foot
23. zigzag foot
24. button foot
25. zipper foot
26. straight stitch foot

Part D

27. take-up lever
28. sewing lamp
29. tension assembly
30. thread stand
31. balance wheel
32. oil flow window
33. belt
34. motor
35. knee press
36. treadle

Part E

37. d
38. g
39. f
40. e
41. b
42. a
43. c

Part F

44. pinking shears
45. shears
46. tailor's tacks
47. pointer and creaser
48. tailor's chalk
49. awl
50. spreading machine
51. plumb line
52. seam ripper
53. bodkin
54. width gauge
55. bobbin

CHAPTER 20

Part A

1. A
2. D
3. A
4. C
5. A
6. D
7. C
8. B
9. A
10. B

CHAPTER 21

Part A

1. D
2. D
3. B
4. B
5. A
6. B
7. A
8. B
9. B
10. C

Part B

11. starch
12. surfactant
13. builders
14. solvent
15. emulsifiers
16. dry side chemical
17. tamping
18. bluing
19. fluorescent whitening agents (FWAs)
20. soap curd

CHAPTER 22

Part A

1. interlocking device
2. heel
3. sanitation
4. liquid bleach
5. safety features
6. recirculated
7. stagnant
8. safety door switch
9. 130
10. poisonous vapors